

Royal Commission  
on Canada's Economic Prospects

# Canada's Imports

by David W. Slater

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ROYAL COMMISSION ON CANADA'S ECONOMIC PROSPECTS

**CANADA'S IMPORTS**

by David W. Slater

JANUARY, 1957

*While authorizing the publication of  
this study, which has been prepared at  
their request, the Commissioners do  
not necessarily accept responsibility  
for all the statements or opinions  
that may be found in it.*

W. L. GORDON — Chairman

O. LUSSIER

A. E. GRAUER

A. STEWART

R. GUSHUE

D. V. LEPAN — Director of Research



## PREFACE

THIS STUDY on Canada's imports is one of a large number of papers prepared for the Royal Commission on Canada's Economic Prospects. This study is largely concerned with the implications for Canadian imports of growth in the Canadian economy. Partly due to the subject matter and partly because of the organization of the Commission's work, this study draws heavily on the efforts of others; accordingly my debts for aid are large.

It was my good fortune to carry out this study with the general guidance of Professor William C. Hood. Common interests led to continuous exchanges with Mr. S. S. Reisman and those who worked with him on a number of international economic studies; these exchanges were of great help to me. Because Canada's imports and her secondary manufacturing activities are so much the opposite sides of a single coin, this study was closely dependent on the group studying secondary industries; thus I am much indebted to Mr. D. H. Fullerton and his associates. Without the help of Dr. John Davis the prospects for Canada's imports of fuels would have been examined on a very slender base of information. Mr. H. E. English assisted me for some time in carrying out this study; for this I am very grateful.

One of the great pleasures of working with the Commission was an association with our director of research, Mr. D. V. LePan. To the Commissioners, particularly to Mr. W. L. Gordon, I would like to express my gratitude for sponsoring the work. Finally thanks are due to the Board of Trustees of Queen's University for granting me leave of absence to join the staff of the Commission.

*David W. Slater*

*Queen's University,  
Kingston, Canada,  
January, 1957.*



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## INTRODUCTION AND SUMMARY

### *I. Scope and Purpose of the Study*

This is a study of the past and present position of Canadian imports, together with some speculations about the future of those imports. The central focus throughout is on the long-run trends or prospects for imports; however, some limited analysis of short-run variations has been undertaken. The study is in a positive rather than a normative vein; our concern is with description and explanation of the import position and with prospects for imports under certain specified conditions, rather than with the desirability of various import positions or policies. International trade is an area of policy concern, but these are beyond our terms of reference. Special studies directed toward various policy questions have been carried out for the Commission by other members of the staff, and policy matters are the direct concern of the Commissioners.

Among the questions which this paper should answer are the following:

- (i) What have been the trends in the level, content, geographical sources and state of manufacture in Canadian imports? What have been the short-run fluctuations in these characteristics of Canadian imports? How have these trends and fluctuations been related to the growth and fluctuations of the Canadian economy?
- (ii) Have there been marked trends of change in the comparative advantage of Canadian manufacturing activity *vis-a-vis* foreign sources of supply? What is the basis of these trends?
- (iii) What have been the effects on Canadian imports of past changes in foreign trade policy?
- (iv) What are the prospects of Canadian imports, in the aggregate and in content, and geographical sources? In particular, what are the prospects of a substantial increase in the U.K. share of Canadian imports?

- (v) What has been Canada's balance of payments experience in the short run and long run, and what role have adjustments of imports played in this balance of payments experience?
- (vi) Do the prospects for imports together with the prospects for exports and capital flows imply any significant problems of balance of payments adjustment for the Canadian economy? So far as imports are concerned, by what mechanisms would those adjustments be brought about and what forms would the adjustment take? What are the prospects for a smooth, fairly rapid, adjustment in such circumstances?

Throughout this study there is one theme which occurs frequently. It is that the level and content of Canadian imports are more a reflection of the state of growth and employment in the Canadian economy than causes of growth or fluctuations in employment. Admittedly, a significant cheapening of imports can provide substantial real gains to the Canadian economy. However, rapid increases in imports have typically been associated with growth which was generated from other sources; the increases in imports have been most rapid when rapid internal growth has been associated with expanding exports and substantial capital inflows into Canada. Similarly, cyclical variations in imports have been much more generated by fluctuations in exports and investment activity than they have been a generator of Canadian economic fluctuations. When we pass to particular kinds of imports, the same story typically holds. Particular kinds of imports have increased rapidly mainly because the Canadian use of that type of good has increased rapidly, rather than because of marked change in the division of the Canadian market between domestic and import sources of supply. In general, this is also true as regards imports which have increased less rapidly than the average, the most notable exception being the recent experience with western Canadian oil.

## *II. Structure of the Study*

The main body of the study has been organized in five chapters. Chapter 2 contains a description of Canada's import trends. In Chapter 3 these trends are analyzed. Chapter 4 is devoted to a general qualitative view of Canada's import prospects, together with the development of some simple statistical import relationships. Chapter 5 is concerned with the prospects for particular kinds of imports. This chapter should be looked upon as the central core of the forecasting effort. By considering individual groups of imports, we arrive at some notion of both the content and the over-all level of Canada's merchandise import prospects; further, this provides the means for considering the prospective geographic source of Canada's imports. The imports of invisibles are also dealt with in this chapter. Chapter 6 deals with the reconciliation of the view of import prospects with other staff studies of Canada's economic prospects and with a number of implications of the import study.

In the main body of the forecasting work in this study, no attention was paid to the availability of foreign exchange to pay for Canada's bill of imports; the main job was to indicate the import implications of the over-all growth in Canadian output and income, the kinds and levels of investment activity expected, and the level and patterns of consumer expenditure likely to develop—all of this assuming that there would be adequate foreign exchange to pay for imports. Of course, in any long-run sense, Canada's bill of imports will be limited to her ability to pay. In Chapter 6, a central concern is with the mechanism of long-run balance of payments and adjustment, rather than with precise reconciliation of the view of import prospects developed in this study and the view of Canada's ability to pay for foreign goods developed elsewhere. In addition, in Chapter 6, we consider the effects of assumptions other than those underlying the forecasting work of Chapters 4 and 5; in particular the effects on imports of changes in the rate of growth, in the structure of prices and in Canadian commercial policy.

### *III. Summary of the Results*

The first part of the study is essentially historical — an attempt at setting out and explaining long-run trends in Canada's imports. Though reference is made to earlier experience, the main indicators of long-run trend have been comparisons of recent (1951-55) Canadian economic experience with that found during the late 1920's. These were both periods of prosperity sufficiently far removed in time from major wars to be free of the worst of the war-induced disruptions to international trade. They are the only two periods in the last 30 years in which conditions approximate at all closely the Commission's terms of reference.

On the basis of this comparison, a main trend has been a gradual decline of Canadian imports of goods and services relative to Gross National Product (G.N.P.). There has been a systematic shift in composition of Canadian imports: machinery and equipment, consumer durables and materials for the manufacture of such items in Canada, chemicals and, until recently, fuels, accounting progressively for larger fractions of the total. Imports of food, textiles, leather products, alcoholic beverages, tobacco and assorted perishable consumer goods have accounted for smaller fractions of Canada's total merchandise imports in recent years than earlier. The proportion of Canada's imports derived from the United States has increased, though not as rapidly as the proportion of Canada's export sales. There was a corresponding decline in the share of Canada's imports coming from the United Kingdom and Western Europe. While a very large proportion of Canada's imports consist of manufactured goods, there is evidence of some slight improvement in the competitive position of the typical Canadian manufacturing industry compared with foreign sources of supply, though there are exceptions to this change.

The main projections of Canada's imports of goods and services were based on the average of the high and low projections of G.N.P. set out in the Commission's study of output, labour and capital,<sup>1</sup> together with the assumption that Canadian commercial policy was unchanged from that which exists at present, and that the structure of import prices will be the same as they have been in recent years. The resulting projections of Canada's imports are summarized in the following table.

*Summary of Forecasts — Imports of Goods and Services*  
(millions)

Year	G.N.P.	Merchandise imports (adjusted)	Invisible imports	Total imports
A. In 1955 dollars:				
1955	26,769	4,450	1,875	6,415
1980	76,138	10,570	4,575	15,145
B. In 1949 dollars:				
1955	21,573	4,160	1,545	5,705
1965	32,350	5,375	2,215	7,590
1980	61,750	9,685	3,815	14,500

The projected imports increase somewhat less rapidly than G.N.P. The composition of imports is expected to shift toward increased fractions of the total being due to machinery and equipment, household consumer durables, chemicals, foreign tourism and interest and dividend payments to foreigners, and smaller fractions accounted for by imports of food, textiles, alcoholic beverages, fuels, materials for structures, and assorted industrial materials. A slight increase is expected in the fraction of Canada's imports which originate in the United States, but no decrease in the fraction coming from the United Kingdom. The main areas from which smaller proportions of Canada's exports are expected are the Caribbean countries of North America and South America, primarily because of the expected relative decline in Canada's imports of petroleum. Mainly because of growth in the size of the Canadian market, it is our belief that there will be a small further improvement in the competitive position of Canadian manufacturing *vis-a-vis* foreign sources of supply.

Generally speaking we believe that imports will play essentially the same role in the Canadian economy in the future as they have in recent years, say between 1952 and 1955. They will be proportionately almost as large. They will respond to short-run fluctuations of Canadian incomes in much the same way. The high level of imports which is associated with high levels of economic activity will condition policies aimed at economic stabilization in Canada in the face of the inevitable fluctuations of exports, in much the same way as they have in the past.

<sup>1</sup>Wm. C. Hood and Anthony Scott, *Output, Labour and Capital in the Canadian Economy*, Ottawa, 1957.

Speaking of fairly broad commodity groups, there will be comparatively little replacement of imports by domestic sources of supply or vice versa, though the most common story will be of a slight decline in the import shares of the Canadian market. Probably the most significant change in Canada's import position has been the development of the Canadian petroleum industry in recent years, a development which has reduced, and will continue to reduce, imports of fuels into Canada. Comparatively modest changes in geographical source of imports are expected.

When the results of this study are put together with those from the export study prepared for the Commission, the conclusion is that Canada will probably import more goods and services in the next 25 years than she exports. In other words, given the basic forecasting assumptions of the Commission's work, it is our belief that Canada will typically be a modest net importer of capital (in a balance of payments sense) in the next quarter century. This is primarily a reflection of a rapid growth in output which was projected.

## THE STRUCTURE OF CANADIAN IMPORTS

IT IS WELL known that Canada is an open economy, one for which international specialization and trade is of high order of importance. This chapter is concerned with description of the import side of this trade. What are Canada's imports? How have they changed during the last quarter or half century? From where do they come and on what terms? How do imports fit into the Canadian economy? How has the sharing of the Canadian market between imports and domestic sources of supply changed? Such questions as these command our attention in this chapter. In Chapter 3 the basis of some of these trends is explored; in later chapters the prospects are treated.

### *I. How Large Are Canadian Imports?*

#### *Has There Been a Trend of Decline in These Imports?*

##### *(a) The Decline in World Trade*

Judged by the size of imports compared with domestic activities, the Canadian economy has been during the last century, and still is, one of the more open economic systems in the world. A few illustrative comparisons of external trade and national income are given in Table 1. These show that external trade is now larger relative to domestic activity in Canada than it is for the United Kingdom, Australia, Sweden, Brazil and Argentina. A few countries, including New Zealand, Denmark, Switzerland, Norway, the Netherlands and Japan, are somewhat more open than is Canada.

At least since the turn of the century the typical situation in the world has been a long-run trend of decrease in international trade compared with domestic output. Since the 1920's this has also been true in Canada. What is distinctive about Canadian experience is the somewhat smaller decline.

The long-run decline in world trade and the particularly severe decline during the 1930's has been observed and commented on by several writers including Robertson, Keynes, Staley, Colin Clark, Hilgerdt and Buchanan. (References are given in the bibliography to this study.) Hilgerdt, in *Indus-*

*trialization and Foreign Trade*,<sup>1</sup> showed that world trade declined relative to world production between 1900 and the late 1920's. Fragmentary evidence shows that Canadian trade did not decline relative to output during these years. From the various national income, production, trade and balance of payments data available from the League of Nations and United Nations sources, it is clear that international trade is now smaller relative to output than it was during the late 1920's. A recent reworking of the experience of the United States indicates that the volume of merchandise imports fell from approximately 5% of G.N.P. in 1929 to approximately 3.6% in 1953, a decline of 26%.<sup>2</sup> Comparable Canadian data show a decline of only 17%.

It now seems clear that the experience of the 1930's tended to overstate the long-run trend of decline in foreign trade; fragmentary data indicate that trade is now relatively larger than it was then, though still somewhat smaller than in the late 1920's. In general, depression conditions reduce foreign trade to a greater degree than domestic outputs, partly because of the structure of foreign trade and foreign investment and existing foreign economic policies, and partly because of emergency restrictions on foreign trade.

Various reasons have been advanced to explain the long-term decline in world trade. Clark, Staley and Buchanan placed emphasis on the growth in the production and consumption of services, which enter much less into international trade than do commodities. Others have placed emphasis on the spread of technology (Robertson and Keynes) or on the industrialization of underdeveloped countries, or on the growth of trade restrictions (Viner).<sup>3</sup> Some investigation of these various influences on Canadian trade is undertaken in later sections.

#### (b) *The Decline in Canadian Imports*

Turning to the Canadian experience, a variety of measures indicate a relative decline in imports. They have been smaller relative to Gross National Expenditure (G.N.E.) in recent years than they were in the late 1920's, measured in current or constant dollars or for merchandise or total imports of goods and services. For example, in current dollars, imports of goods and services averaged 29.8% of G.N.E. between 1926 and 1929 and not quite 24% between 1953 and 1955. In current dollars merchandise imports have declined from almost 20% to approximately 16.8% of G.N.E. In constant dollars the changes have been of roughly the same degree. The data are set out in Table 2.

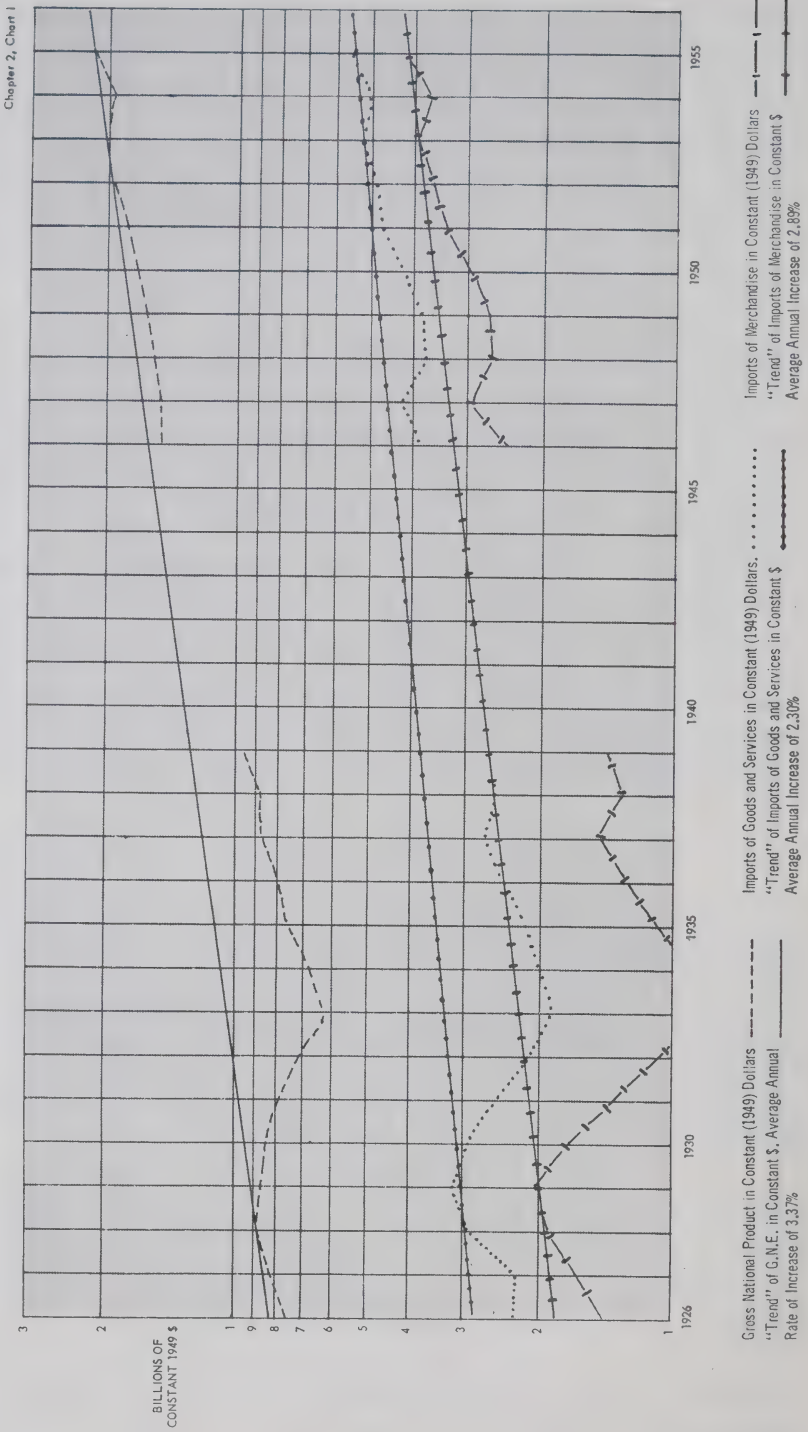
In Chart I the growth of imports is compared with the growth in G.N.P., all in constant dollars. The experience of during late 1920's and recent years is taken as typical of long-run trends. Judged in this way the average annual rate of increase in G.N.P. has been approximately 3.4%, in imports of goods and services 2.3%, and in merchandise imports 2.9%.

<sup>1</sup>League of Nations, *Industrialization and Foreign Trade*, Geneva, 1945.

<sup>2</sup>U.S. Dept. of Commerce, *Survey of Current Business*, Nov. 1955.

<sup>3</sup>For references in this paragraph, see bibliography.

CANADA - G.N.E., IMPORTS OF MERCHANDISE AND IMPORTS OF GOODS AND SERVICES IN CONSTANT (1949) DOLLARS



The relative decrease in Canadian imports has been much larger for the service or invisible items than for merchandise. Why is this so? In Table 3 a distribution of Canadian imports of goods and services is given. These data show that the major factor responsible for the disproportionate decline in imports of services is the very sharp fall in the interest and dividend payments to non-residents. Tourist and travel expenditures and the miscellaneous items have grown about as rapidly as merchandise imports. Comparable data in constant dollars are included in the table and they tell essentially the same story.

The main reason for the relative decline in interest and dividend payments is the reduction in the value of Canada's gross liabilities to foreigners compared with either G.N.P. or with total imports of goods and services. This is shown up quite sharply in Chart II. In other words, though the value of foreign investment in Canada is now larger than it was in the late 1920's, it is not as much larger as is Canada's G.N.P. measured in current prices. Another factor has contributed to the relative decline in interest and dividend payments; with the exception of the last year, there has been a downward drift in interest rates. Chart II also shows the very great change which has taken place since the 1920's in the composition of the interest and dividend items. Dividend payments now are approximately three times the level of the late 1920's while interest payments are approximately the same as in the 1920's. This in turn reflects the changing character of Canadian indebtedness to foreigners.

## *II. What Types of Goods Are Imported?*

Except for her great export staples, such as grains, pulp and paper, common lumber and base metals, Canada imports some part of almost all other goods which she uses. One classification of these imports is given in Table 4 and Chart III.<sup>4</sup> Currently more than one-third of Canada's imports consists of capital goods and consumer durables (including military equipment) and approximately another 12% consists of selected raw materials which flow primarily into the manufacture of durable goods. Another third of the imports consists of foods, clothing and footwear or materials for such uses, and miscellaneous consumer goods. The remainder of the imports consists of fuels and lubricants (approximately 12% in 1953) and chemicals (approximately 5% in 1953).

Some insight into the trends of Canadian imports is revealed by this classification of the value of imports. Imports of producer and consumer durables and the raw materials which enter into these have grown from less than one-third to more than one-half of Canada's imports between 1926 and 1953. At the opposite extreme, imports of agricultural and animal food products, clothing and personal furnishings and materials for these uses have fallen from more than 40% to approximately 20% of total imports. Fuels

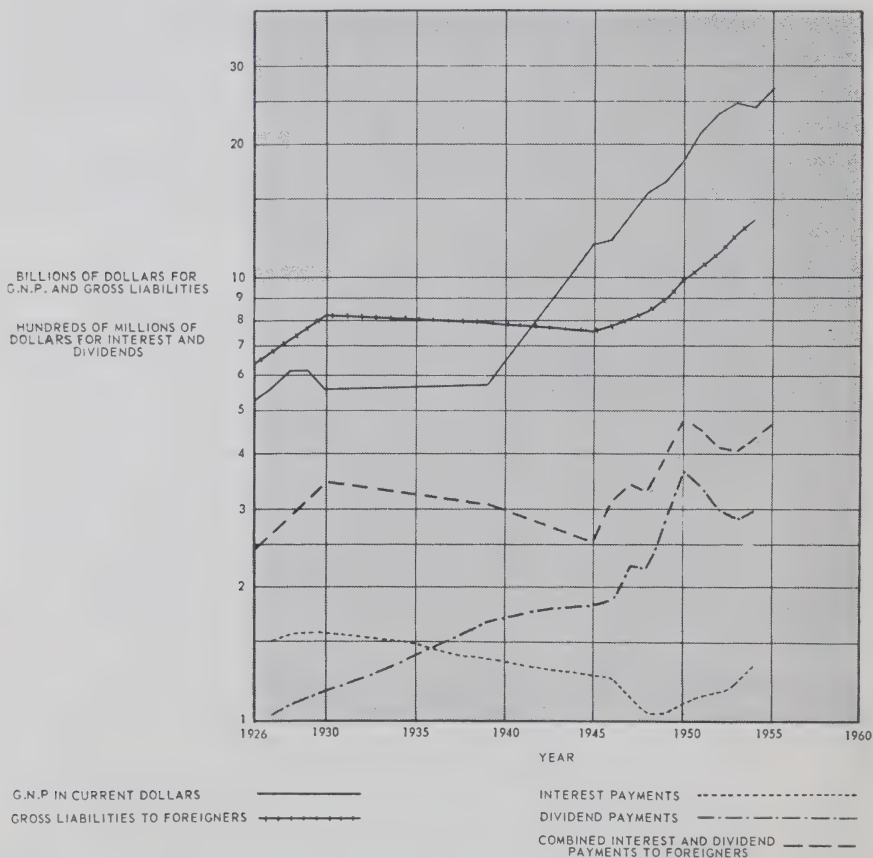
<sup>4</sup>The classification is described in Appendix A. It is essentially a crude regrouping of the main sub-classes of the published import statistics.

and lubricants tended to increase as a proportion of total imports until 1950, but have subsequently declined, primarily because of the development of Canadian petroleum. Miscellaneous consumer goods and chemicals have shown a consistent tendency to increase in importance in the total import bill.

In a somewhat less clearcut manner, the commodity component classification of imports shows the same trend.<sup>5</sup> (See Chart IV.) Iron and steel, miscellaneous goods, non-metallic minerals, non-ferrous metals and chemicals are the groups which have become larger proportions of the total import bill, while animal, agricultural and vegetable and fibres and textile products have become much less important. This type of development is not unique to the last three decades of Canadian experience. The same kind of change took place between the turn of the century and the late 1920's.<sup>6</sup>

# CANADA - G.N.P. GROSS LIABILITIES TO FOREIGNERS AND PAYMENTS OF INTEREST AND DIVIDENDS TO FOREIGNERS

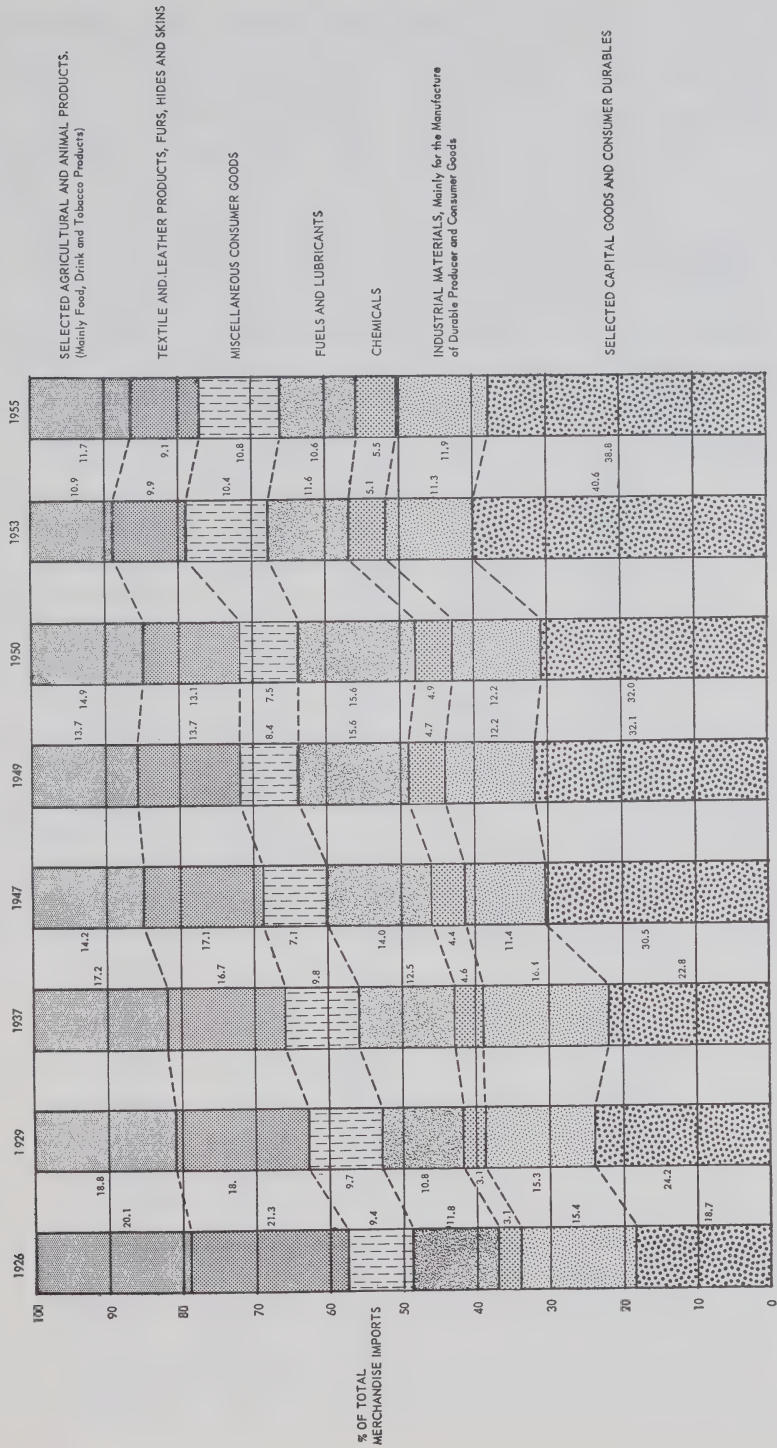
Chapter 2, Chart II



<sup>5</sup>This is the main basis of classification used in the published Canadian trade statistics.

<sup>6</sup>David W. Slater, "Changes in The Structure of Canada's International Trade", *Canadian Journal of Economics and Political Science*, February, 1955.

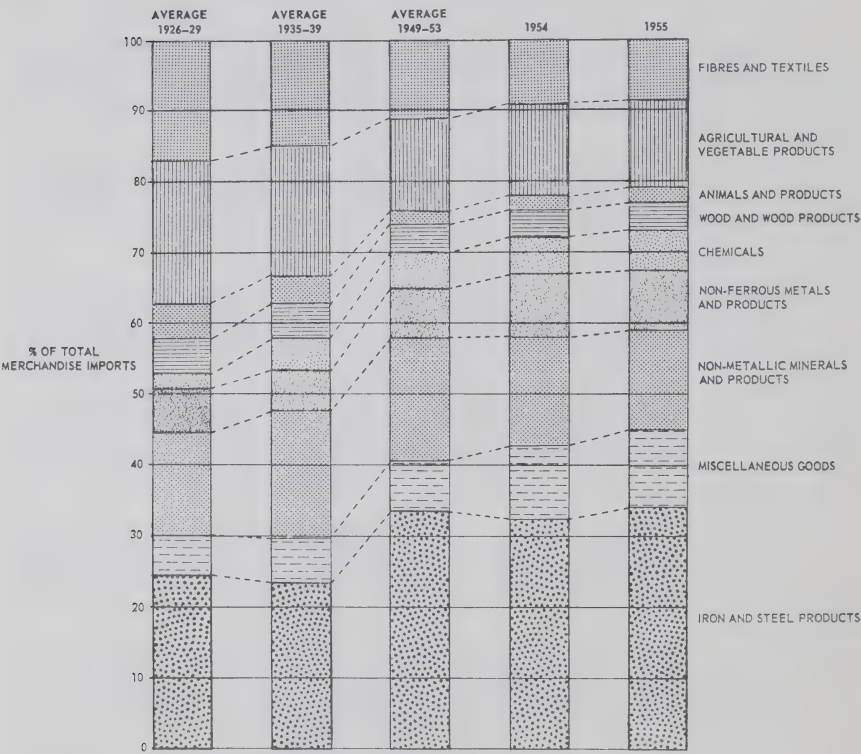
CANADA - A DISTRIBUTION OF THE VALUE OF MERCHANDISE IMPORTS



The commodity component classification facilitates some other comparisons, such as growth in *volume* of imports, as price indices have been worked out on the basis of this classification. In Chart V the classes of imports are compared in value with G.N.P. in current dollars, and in volume with one another and with G.N.P. in constant dollars. This chart shows that only three classes of imports have grown in value relative to G.N.P.; these are miscellaneous products, chemicals and fertilizers, and iron and steel products. In volume the trends of the various classes is essentially the same as was indicated by the value data. Miscellaneous commodities, chemicals, iron and steel products and non-ferrous metals have grown relatively to the volume of total imports, while the first three have grown relative to G.N.P. in constant dollars also.

CANADA: DISTRIBUTION OF IMPORTS, COMMODITY COMPONENT CLASSIFICATION

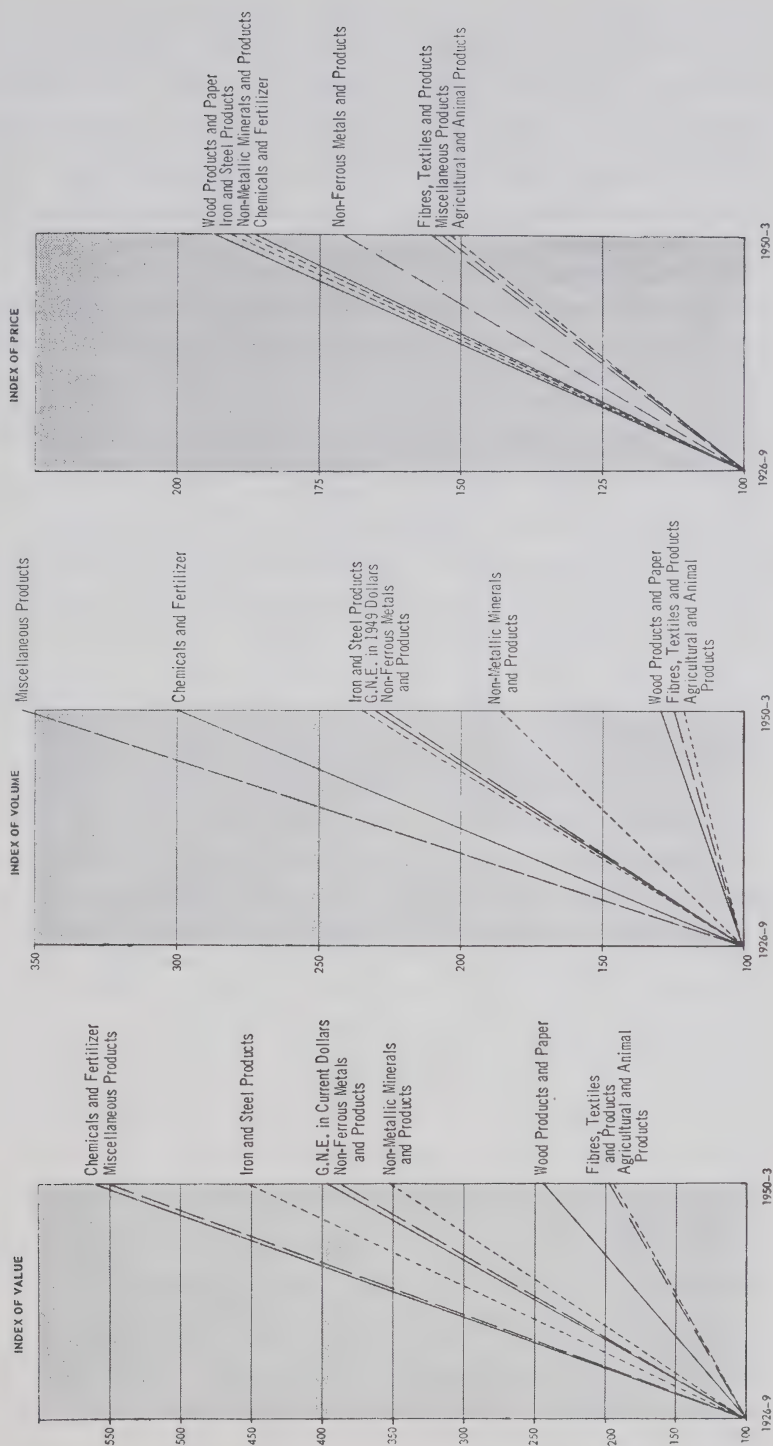
Chapter 2, Chart IV



Before going on to questions of the sources of imports and the relationship of imports to various sectors of the Canadian economy, the content of Canadian imports may be examined in a little more detail. (Detailed value data and a percentage breakdown of the values are given in Appendix D, Tables I and II.) Table 5 presents a few highlights of the detailed commodity composition, classifying commodities into those for which imports have expanded and contracted.

CANADA — IMPORTS, COMMODITY COMPONENT CLASSIFICATION, COMPARISON OF  
CHANGE IN VALUE, VOLUME AND PRICES, 1926-29 to 1950-53

Chapter 2, Chart V



This table shows that the relatively expanding groups of imports are mainly capital goods, household consumer durables, petroleum and products, and chemicals. The most rapid increases in percentage of total imports are shown by electrical apparatus and supplies, petroleum and products, farm implements, non-agricultural machinery, engines, locomotives and boilers, airplanes, refrigeration equipment, scientific and educational equipment, chemicals, aluminum materials and other miscellaneous goods. The groups of imports which have fallen substantially as a proportion of total imports include some tropical foods and materials; textiles and materials for personal and household furnishing, such as furs, hides, leather, raw cotton and manufactured cotton; and some staple industrial materials, such as rubber, base metals, raw materials and coal. It is particularly interesting to find primary iron and steel among the groups which have declined substantially as a proportion of total imports, in view of the comparatively rapid growth in Canadian consumption of iron and steel products.

The reasons for these changes in Canada's import pattern will be examined in Chapter 3. The most important factor seems to be the difference in the rate of growth of Canadian consumption of various products rather than a shift from domestic to import sources of supply for particular classes of items. Some additional data on the relationship of imports to domestic activities and on the sharing of the Canadian market between import and domestic sources of supply are set out in Sections V and VII below.

### ***III. Where Do the Imports Come From? What Relationships Are there between the Content and the Geographical Source of Canadian Imports?***

The United States is now the overwhelmingly important source of Canadian imports, with the United Kingdom as the largest other supplier. For example, in 1953 almost three-quarters of Canada's merchandise imports came from the United States and another 10% from the United Kingdom. Selected data on the geographic distribution of imports are found in Table 6. As early as the turn of this century, more than 50% of Canadian merchandise imports were derived from her southern neighbour. Since that time there has been a more or less persistent growth in the fraction, accompanied by a decline in the share coming from the United Kingdom, the two areas together supplying a more or less constant proportion of the total.

This means that the fraction of the imports which came from all other areas combined has been comparatively small, and it has not changed very greatly during this century. Nevertheless there have been some important changes in the import side of Canada's trade with areas other than the United Kingdom and United States. In the first quarter of the century, there was a comparatively rapid growth in the share of Canada's imports originating in Western Europe, mainly due to increased imports of iron and steel, textile and chemical products from those areas. This increase was sufficiently rapid that, by 1929, a 10% larger fraction of Canada's merchandise imports origi-

nated in countries other than the United States and United Kingdom than in 1900. Since the 1920's, Canadian imports from Western Europe and from the United Kingdom have followed a similar course, both areas being relatively smaller suppliers of the Canadian market now. While there was comparatively little growth in the proportion of Canada's merchandise imports derived from areas other than the United Kingdom, Western Europe and the United States during the first quarter of this century, the picture has been quite different during the last 30 years. There has been a very sharp increase in the share coming from South America, (about 1% of the total in 1900, 2.3% in 1929 and 5.8% in 1953), mainly due to increased imports of petroleum and petroleum products from that area. For a long time, the Caribbean area of North America has been an important source of tropical products for Canadian consumption; however, the proportion of total imports from these areas is now not very different from what it was in the late 1920's. Asia has been a source of tea, rubber, jute and silk; this area supplied approximately 2.6% of Canadian imports both in the late 1920's and at the present time. Oceania has been a main source of wool and of some food products; in aggregate this area supplies a smaller proportion of Canadian imports now than it did 25 years ago — about 1% compared with 2%. Africa has never been a very large supplier of Canadian imports, but has shown some trend of increase.

The source and types of Canadian imports are closely related. Except for some tropical products, some of almost every kind of import comes from the United States. Between 1949 and 1953 United States supplied 71% of Canadian imports. For some types of goods the United States proportion was more than 90%, for example, chemical, iron and steel products and wood products. For only three groups was the United States' share in Canadian imports less than 70%. These are agricultural and vegetable products for which tropical merchandise imported from Latin America and Asia are important, textiles for which the United Kingdom, Western Europe, Australia and Asia are major suppliers, and non-metallic minerals for which Latin American oil is important. The dominance of the United States as a supplier of iron and steel products, chemicals, miscellaneous products, wood products and non-ferrous metals is essentially the same today as it was three decades ago, though for some items, such as petroleum, the United States has declined somewhat (relatively) as a supplier.

The United Kingdom supplied an average of 10.6% of Canadian imports between 1949 and 1953. This was made up mainly of fibres and textiles, iron and steel products and electrical apparatus. Looked at another way, the United Kingdom share in Canadian imports was well above 10% for fibres and textiles and non-ferrous metals; it was about 10% for iron and steel products and well below 10% for all others. The decline in the over-all British share in Canadian imports was partly due to the decline in the British share of imports of particular kinds of goods. For example, the British share has fallen substantially between 1926-29 and 1949-53 for agricultural and vegetable products, fibres and textiles, wood and wood products. The British share has

risen for iron and steel products and non-ferrous metals. However, another factor has played a part in the decline of the over-all British share in Canadian imports: this is the change in the over-all importance of particular classes of goods in the Canadian import bill. Fibres and textiles are a much smaller group of imports now than they were in the 1920's, so are alcoholic beverages. For these groups and for wood products, agricultural and vegetable products and animal products, total Canadian imports have declined relatively as well as the British share in those imports. On the other hand, the British share in imports of iron and steel products and non-ferrous metals has increased. As well, the share of these goods in the total bill of imports has increased. Thus, to some extent, the British have adjusted to the change in opportunities in the Canadian market but not sufficiently to maintain their over-all share in our market.

We have already noted the decline of Europe as a supplier of Canadian imports during the last three decades. Table 9 presents some data on the relationship of source and type of import from areas other than the United States and the United Kingdom. This table shows that Western Europe in 1953 supplied a smaller share of the Canadian market than in 1929 for every class of goods except animal products. The decline in the European share was particularly severe for fibres and textiles, a class of goods which also declined in over-all importance in Canadian imports. Thus approximately 2.3% of the total Canadian imports were accounted for by fibres and textiles coming from Europe in 1929 and less than 1.5% in 1953. Western Europe like the United Kingdom has done relatively well in holding its share of Canadian imports of iron and steel products and non-ferrous metals; they have done much less well in holding their share of the expanding Canadian imports of chemicals.

Canada's imports from South America have increased quite rapidly; this is primarily due to the very rapid increase in imports of oil from that area. To a lesser extent it is due to the South Americans obtaining a sufficiently large share of Canadian imports of agricultural and vegetable products to more than offset the over-all decline in the fraction of Canadian imports due to these products. The increase of Canadian imports from the Caribbean area is due to two factors: the marked increase of their share of the Canadian imports of food products, and growth in the flow of bauxite to the Canadian aluminum industry. For most classes of goods Oceania provides a somewhat larger proportion of Canadian imports than it did in 1929. However, the relative decline in Canadian imports of foods and textiles has been sufficiently rapid that this area accounts for a much smaller proportion of Canada's total imports now than in the late 1920's.

Earlier in this chapter we noted the very much larger relative value of imports for the Canadian economy than for that of United States. The overwhelming importance of the United States as a source of Canadian imports and the very large share of the United States imports which Canada attains invites a comparison of the two areas after netting out the trade over the

Canada-United States border. Canadian imports from areas other than the United States would amount to approximately 4% of G.N.P. American imports other than from Canada would amount to less than 3% of American G.N.P. Thus for both countries the rest of the world is a relatively small supplier of the total goods and services which are used. Of course, there are some important differences between the two countries with respect to the type of goods and service supplied by the rest of the world. Highly fabricated manufactures are somewhat larger in importance and raw materials somewhat smaller in importance for Canada than for the United States.

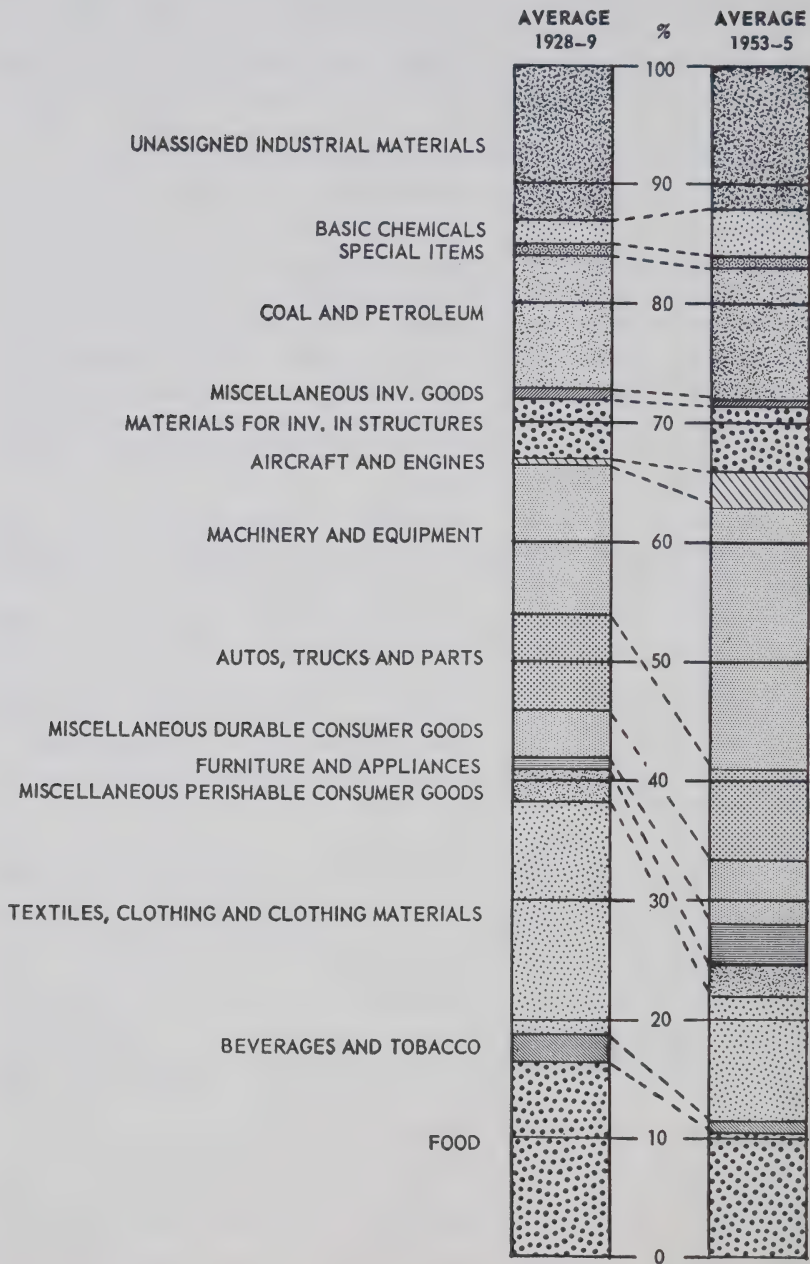
#### *IV. Imports and Domestic Economic Activities*

One means of analyzing imports is to relate various classes of imports to specific types of economic activity in Canada. For example, imports of food may be related to expenditures on food and imports of machinery and equipment to expenditures on machinery and equipment. An appendix is attached to this study, dealing with various efforts of others along these lines, with the problems of assigning imports to final uses and with the procedures used in this study. (See Appendices A and B.) Ideally, a set of input-output studies, fully integrated with the national accounts for a number of years, would be the appropriate way of investigating import-activity relations. Such a venture is well beyond the scope of this inquiry.

For our analysis imports have been classified into a number of functional groups (food, beverages and tobacco, clothing and materials for personal and household furnishings, household consumer durables, etc.) in so far as this could readily be done from data on Canadian external trade. In turn, these functional groups have then been related to measures of Canadian activities. The basic work has been done on value data. Industrial materials which could clearly be assigned to the functional groups were so allocated; those which find their way into several uses were treated as a general residual group of industrial materials. The summary results of our investigation are set out in Table 10 and Chart VI.

Ordinary observation suggests that there are very great differences in the import content of various Canadian economic activities, import content being small for services and large for investment in machinery and equipment. Because of differences in valuation of imports and domestic activities and due to limited information for making adjustments, the data in Table 10 are subject to some reservations as an index of import content. In general, the measures of import content are too low. Nevertheless, the table provides a fairly satisfactory indication of the relative size of imports for various activities. Whereas total merchandise imports average 17.9% for G.N.P. the import content of a combined group of public and private expenditure on new machinery and equipment and exports of transportation equipment and machinery and equipment is almost 50%. The appropriate valuation adjustments would probably run the latter figure up close to 60%. The import content appears to be higher than average for personal and household fur-

CANADA: VARIOUS FUNCTIONAL CLASSES OF IMPORTS.  
AS PROPORTION OF TOTAL MERCHANDISE IMPORTS



nishings, the combined group of appliances, radios and furniture, for miscellaneous manufactured consumer goods, for fuel and for new autos. Imports enter much less importantly into consumer expenditure on beverages and tobacco, investment in structures and consumer expenditure on food. If it were readily possible to carry the classification further, we would almost certainly find that the import content of government expenditure (except public expenditure on new machinery and equipment and military equipment) and exports was much smaller than the national average. We may crudely summarize these data as showing a very high import content for investment in machinery and equipment, high import contents for consumer durables, fuel, clothing and personal furnishings, and small import content for investment in structures, exports, government services, food and beverage consumption, and the whole range of personal services excluding tourism. This means that shifts in the pattern of final expenditure on goods and services in Canada can lead to substantial changes in the *average* propensity to import for the whole economy. For example, a substantial shift in final demand toward investment in machinery and equipment and expenditure on consumer durables and away from, say, government services and food, could lead to a substantial increase in Canada's average propensity to import.

Perhaps even more interesting than the import content at any particular point of time is the change in import content of various kinds of activity over time. We judge the secular drift by comparing the late 1920's with 1953-55; only selected years are shown in Table 10, more extensive data being set out in Appendix D, Table V. Our study shows that there has been a very rapid decline in the import content of expenditures on food, beverages and tobacco, and personal and household furnishings. For consumer durables and miscellaneous consumer goods, there have been somewhat mixed trends. The import content of personal expenditure on automobiles is considerably lower now than it was in the later 1920's; however, imports appear to be at least as important a source of supply of appliances, radios, furniture and miscellaneous manufactured consumer durables now as they were almost three decades ago. The most important trend which shows up in the data is the sustained high import content of new machinery and equipment investment. Imports of the unassigned industrial materials, fuels and materials for structures are not now very different compared with the related activities than they were in the late 1920's.

The trends in the various average propensities to import have far-reaching implications. Together with the changes in pattern of national expenditure they proximately explain the very substantial relative shift in Canada's bill of imports from foods, beverages, textiles and other materials for personal and household furnishing, toward iron and steel products and electrical apparatus.

For some purposes it is better to gather all of the imports of industrial materials together and analyze the behaviour of the broad class and the content of industrial materials as such. This has been done in Table II. This

table shows that the total imports of industrial materials bear approximately the same relationship to Gross National Production and to the net value of manufacturing activity in Canada now as they did in the late 1920's. However, the composition of the imports of materials has changed considerably. Textile materials have become much less important, as have primary iron and steel products and such base metals as copper, lead and tin. Chemicals and aluminum materials have become a much larger proportion of the total imports of industrial materials.

### *V. Degree of Manufacture of Canadian Imports*

A somewhat crude indicator of change in the character of Canadian imports is provided by data on the degree of manufacture. Selected data on the over-all distribution of imports under the Brussels classification of the degree of manufacture are provided in Table 12. Judging by these aggregate data, Canadian imports are now of a more highly fabricated character than they were three decades ago or prior to World War I. Superficially this conflicts with our notions of Canadian industrial development.

The conflict is only superficial. Changes in the aggregate degree of manufacture of imports depends on (1) changes in degree of manufacture of sub-groups of imports, and (2) changes in the relative importance of sub-groups which differ widely in degree of manufacture. Detailed examination of the trade statistics indicates that the typical situation is for the degree of manufacture to be smaller now than in the late 1920's for many sub-groups of imports. For example, imports of cotton textiles have fallen substantially relative to imports of raw cotton. However, in the aggregate this change has been more than offset by the increased importance of sub-classes of imports which have the very highest degree of manufacture, *e.g.* machinery and equipment.

In any case, as will be shown in Section VI of this chapter, the typical situation is for the share of the Canadian market in manufactured goods obtained by domestic producers to be slightly higher now than in the late 1920's.

We should note parenthetically the abnormal situation found in the 1930's and 1948 and 1949. During both periods, but for different reasons, unusually high restrictions on imports existed. These restrictions had a much more severe impact on imports of highly manufactured goods than raw materials.

### *VI. The Import Share of the Canadian Market*

Another way of studying the structure of Canadian imports is to analyze the import share of the Canadian market in various goods. At any point of time the competition of imported supplies and domestic production will vary greatly among commodities. Over time there will be significant variation in import competition depending upon tariff and exchange rate changes, the

state of economic development and such like. In most discussions of tariff changes the import share of the Canadian market provides an important measure of the need for or response to changes in duties.<sup>7</sup>

As part of this study, indices of the import share of the Canadian market have been constructed for a sample of secondary industries and groups of products. The study was restricted to a sample because of the limited time and resources of this inquiry. In choosing the groups an attempt was made to obtain representation of most of the important economic situations such as industries with high and low tariffs, industries in which the manufacturing operations are capital intensive and labour intensive, industries where the minimum efficient scale appears to be large and small and industries which have varying degrees of natural economic advantage in Canada.

For each industry or group of products the intention was to develop comparable measures of imports, exports, production and domestic disappearance. The basic data have been developed from value series; supplementary analysis was made of data on a volume basis.

In the value series, output has been measured as the gross value of production of the industry or group of products. In some cases the industry, as defined by the Dominion Bureau of Statistics (D.B.S.), produces a rather heterogeneous group of products; in a number of these instances the industry was redefined for purpose of this inquiry to include the total production of more homogeneous product groups. In measuring imports and exports, the main task has been to identify those import and export groups which are comparable to the output measure. For each industry the imports include products which are produced by the secondary industry in Canada and those which, if produced in Canada, would be assigned to that secondary industry though the items may not now be part of Canada's output. In addition the imports include components or parts for the industry. Imports of materials which would not be identified in the standard commodity classification as the output of the secondary industry with which we are concerned have been excluded. For example, in measuring the imports of electrical apparatus we would include electric motors and parts but would not include coal or steel which was used by the electrical apparatus and supplies industry.

Estimates of domestic disappearance (sometimes called the apparent Canadian consumption) obtained by adding imports and subtracting exports from the output of the industry have their limitations as do measures of the import share obtained as a ratio of imports to domestic disappearance. First, the gross value of production includes the value of the imported components and thus leads to an element of double-counting. In general, it is not possible to eliminate this double-counting because the Canadian import statistics very often do not distinguish between imports of finished goods and parts. This

<sup>7</sup>There are very difficult problems in interpreting the relationship between import shares and changes in commercial policy. First, it is not easy to obtain unambiguous measures of import shares. More important, the import shares can change for many reasons *other* than changes in commercial policy.

double-counting will tend to understate the import share of the Canadian market. Second, the imports are valued f.o.b. point of origin whereas the gross value of production is measured at producers' prices in Canada. To place imports on a comparable basis of valuation it would be necessary to add transportation and distribution costs and import duties to the recorded value of imports. For most classes of imports it is not readily possible to make these adjustments with any precision. Neglect of this adjustment also tends to understate the import share of the Canadian market. Third, the indices which are used in this study to measure changes in the import share of the Canadian market are necessarily at some considerable level of aggregation. The aggregation tends to hide some features of change in the position of imports relative to Canadian production. The industry with which we are concerned may produce Products A, B, C and D. Quite some time ago, Product A may have been developed in roughly its present form. In the early stages of development the import share of the Canadian market may have been very high. In the ordinary course of Canadian economic development it may now be much lower. Product D may be a recent development in which the import share of the Canadian market is extremely high though the long-run prospects are for some decline. For the whole industry, defined to include Products A through D, it might appear as if there has been no net change in the import share of the Canadian market. One would clearly miss a considerable part of the change in import-production relationships if the study was limited to the aggregates.

A crude indicator of the comparative growth of imports of manufactured goods and the growth of manufacturing activity in Canada is provided in Table 13. Data are set down on imports of manufactured goods according to the Brussels degree of manufacture classification, and these are compared with the gross value of Canadian manufacturing, the national income originating in Canadian manufacturing, and with the gross value of Canadian manufacturing less exports of manufactured products. These data show that imports of manufactured goods have been noticeably higher in relationship to the production or domestic sale of Canadian manufactured output in recent years than they were between 1930 and 1950 (except for 1947). However, such imports are distinctly lower relative to these general indicators of domestic manufacturing activity or domestic sale of Canadian manufactures than they were in the late 1920's, suggesting some significant improvement in the competitive position of Canadian manufacturing.

The main results of the detailed study of various industries have been set out in Table 14. This table shows the import share of the Canadian market and the export share of Canadian production for 27 groups (and for eight sub-groups of industrial machinery).

From these data is there any indication of substantial change in the sharing of the Canadian market between domestic and imported sources of supply? Weighted averages of the import shares provide some help in answering this question.

*Weighted Average of the Import Share of the Canadian Market  
Based on 27 Industry Groups, 1929, 1938, 1952*

Average import share in:	Using 1929 domestic disappearances as weights	Using 1952 domestic disappearances as weights
1929	36.92	38.57
1938	26.99	27.87
1952	34.03	34.08

Comparing 1929 and 1952, the sample of industries indicates a small secular decrease in the average import share of the Canadian market.

While there is little indication of a major change in the long-run average sharing of the Canadian market, the sharing has changed considerably through the period. In general, the average import share of the Canadian market was much lower in the middle and late 1930's than it was in the late 1920's; through the war and early postwar years (except for 1947) it was substantially below that in either the late 1920's or since 1951. The fluctuations in the sharing of the market were associated with changes in commercial policy, war conditions and certain features of the postwar transition period (including emergency exchange conservation measures). These are explored in Chapter 3 of this study. What may be suggested here is that rather poor indications of long-run trends in sharing of the Canadian market between imports and domestic sources of supply are provided by comparisons of present circumstances with either immediate prewar or postwar experience through 1949.

Table 14 also indicates the rather large and persisting differences in the import share of the Canadian market for various goods. Parts A and B of the table include those groups or sub-groups in which the import share is quite large; machinery and equipment, and consumer durables dominate the list (although not all such items fall into Parts A and B of the table). Further, with the exception of elevating and conveying machinery; compressors; motor vehicles and motor vehicle parts; small electrical appliances; and radio equipment, the import share of the Canadian market in machinery and equipment and consumer durables was either not much lower, or was actually higher in 1952 than it was in 1929. Comparing 1929 and 1952 the import share of Canadian textile markets has had a mixed performance; the share has fallen sharply and is now at a low level for synthetic and silk textiles, has fallen sharply for woollens, and is about the same for cotton textiles.

The differences among industries in the import shares of the Canadian market reflect differences in the cost disadvantages of various Canadian industries, in Canadian commercial policy with respect to various products and in other market arrangements. These will be explored in Chapter 3, and in the study of Canadian commercial policy carried out for the Commission. Such an exploration is necessary to an appraisal of Canada's future import requirements as some notion of the future sharing of the Canadian market between import and domestic sources of supply is required.

Before leaving these data, brief comment should be made on the data on export shares found in Table 14. In general, the export share of Canadian manufacturing production is small for all groups listed in the table, except for farm implements. As a long-run matter, the average export share of Canadian production appears to be only slightly higher now than in 1929. Finally, paralleling the fall in import shares of the Canadian market in the 1930's, there was a significant increase in the average export share of Canadian production of the items listed.

The main body of our detailed analysis of the import shares of the Canadian market and export shares of Canadian production was carried forward only to 1952, and in some cases to 1953. This is because incomplete data were available from the census of industry at the time when the investigation was carried out. The import situation may have changed markedly in recent years, and these recent years may give a better indicator of normal relationships between imports and Canadian manufacturing activity. To investigate this problem a supplementary but less complete analysis has been made of gross shipments by various Canadian manufacturing industries, and of roughly comparable groups of imports and exports between 1952 and 1955, and in some cases during 1956. These data are summarized in Table 15. Generally speaking, they show that small increases have taken place between 1952 and 1955 in the ratio of imports to the Canadian domestic disappearance of various manufactured goods. Similarly, between 1952 and 1955 small decreases are generally found in the ratios of exports of various manufactured goods to the production of those goods. Taking a weighted average of the import shares of the Canadian market for the various groups in this supplementary study, using 1952 weights, the average import share for the whole sample is: 1952, 29.44%; 1953, 31.17%; 1954, 31.13% and 1955, 32.50%. A similar weighted average for the export share of the Canadian production, using 1952 production as weights shows the average as: 11.55% in 1952; 9.32% in 1953 and 8.98% in 1955. These data, together with those presented in the table on page 36, suggest that there has been a very slight long-run decrease in the import share of the Canadian market for manufactured goods, comparing 1955 with 1929.

Fragmentary evidence suggests that imports of manufactured goods are even larger relative to the total Canadian market for such goods during the first half of 1956 than they were in 1955. Should this experience since 1952, particularly that of 1956, be taken as evidence of a sharp long-run deterioration of the competitive position of Canadian manufacturing? We think not. In the latter part of 1955 and particularly in 1956 the Canadian economy had been overloaded, and the rate of capital inflow exceptionally large. The normal short-run reaction to such a situation is a sharp increase in imports relative to Canadian production, producing the observations like those found in Table 15. These views will be explored more fully in later chapters; they are mentioned here only as a caution to interpretations of current Canadian experience with imports.

## VII. Summary

Looking at Canadian imports during this century, it is our belief that there are a number of fairly stable long-run trends. Imports play only a slightly smaller role in the Canadian economy now than they did more than a quarter of a century ago. Imports of machinery and equipment, consumer durables, miscellaneous manufactured consumer goods, and parts and components for the manufacture of such items have for a long time been increasing more rapidly than the average of Canadian imports, as have imports of chemicals and fuels. The main proximate factor in this growth has been the comparatively rapid increase in Canadian consumption of such items. Imports of foods, textiles, animal products, alcoholic beverages and tobacco products have also, for a long time, been increasing less rapidly than the average of Canadian imports. A major factor in the increased proportion of Canada's imports originating in the United States has been this relative change in the content of the imports. While there has been considerable variation in the import share of the Canadian market for manufactured goods through the 1930's, World War II and the early postwar period, after making allowance for the abnormally high levels of economic activity in 1955 and in 1956, it does appear that the normal import shares are slightly smaller now than they were in the late 1920's.

Table 1

### SELECTED COUNTRIES: EXTERNAL TRADE AND NATIONAL INCOME

Country	Percentage of national income			
	1929		1953	
	<i>Imports</i>	<i>Exports</i>	<i>Imports</i>	<i>Exports</i>
United States.....	5.1	6.1	3.6	5.2
United Kingdom.....	29.4	20.3	22.6	18.2
Canada.....	27.1	24.6	23.1	22.0
Australia.....	19.0	20.2	13.7	22.9
New Zealand.....	—	—	26.5	32.4
Belgium.....	51.8	46.6	—	—
Denmark.....	34.7	32.8	30.7	27.5
Sweden.....	21.7	22.1	22.1	20.7
Switzerland.....	28.3	22.3	24.3	24.8
Norway.....	30.7	21.5	38.6	21.5
Netherlands.....	45.3	32.8	46.6	42.2
Union of South Africa.....	32.1	20.0	31.1	24.4
Brazil.....	—	—	7.5	9.5
Argentina.....	—	—	6.1	7.7
Japan.....	—	—	40.4	21.4

These ratios have been computed from data available in the U.N. *Statistical Year Book*, 1954, and the U.N. *Monthly Bulletin of Statistics*, September, 1955.

## CANADA: TOTAL IMPORTS AND CANADIAN ECONOMIC ACTIVITY, SELECTED YEARS, 1926-55

Year	G.N.E. in constant (1949) dollars (\$ millions)	Imports of goods and services in constant (1949) dollars (\$ millions)	Merchandise imports in constant (1949) dollars (\$ millions)	Imports of goods and services as percentage of G.N.E. (both in 1949 dollars) (percent)	Merchandise imports as percentage of G.N.E. (both in 1949 dollars) (percent)	Imports of goods and services as percentage of G.N.E. in current dollars (percent)	Imports of merchandise as percentage of G.N.E. in current dollars (percent)	Imports of services as percentage of G.N.E. in current dollars (percent)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1926	7,610	2,278	1,433	30.0	18.3	28.7	18.4	10.3
1927	8,251	2,257	1,641	27.4	19.9	28.8	18.7	10.1
1928	8,852	2,907	1,927	32.9	21.8	29.6	19.8	9.8
1929	8,679	3,168	2,058	36.5	23.7	31.5	20.6	10.9
1930	8,495	2,912	1,744	34.3	20.5	29.3	17.5	11.8
1933	6,214	1,832	810	29.5	13.0	23.3	10.4	12.9
1935	7,619	2,132	1,098	28.0	14.4	23.4	12.1	11.3
1936	7,923	2,434	1,254	30.7	15.8	25.2	13.0	12.2
1937	8,727	2,684	1,467	30.6	16.8	26.3	14.5	11.8
1938	8,849	2,534	1,306	28.6	14.8	24.0	12.4	11.6
1939	9,640	2,672	1,429	27.7	14.8	23.3	12.5	10.8
1946	15,137	3,879	2,437	25.6	16.0	23.9	15.2	8.7
1947	15,315	4,245	2,943	27.7	19.2	26.3	18.4	7.9
1948	15,833	3,756	2,663	23.7	16.8	23.3	16.6	6.7
1949	16,304	3,837	2,696	23.5	16.5	23.3	16.4	6.9
1950	17,325	4,210	2,903	24.3	16.8	24.8	17.2	7.6
1951	18,340	4,705	3,389	25.7	18.5	26.1	19.1	7.0
1952	19,585	4,874	3,552	24.9	18.1	23.2	16.5	6.7
1953	20,344	5,297	3,916	26.0	19.2	23.9	17.2	6.7
1954	19,757	5,058	3,656	25.6	18.6	22.9	16.1	6.8
1955	21,538	5,721	4,161	26.6	19.3	24.0	17.0	7.0

SOURCES: Column (1) — 1926-30 — a revision made by the Commission of the D.B.S. estimates of G.N.E.; 1933-46 — D.B.S. estimates of G.N.E. in 1935-39 dollars converted to 1949 dollars by the Commission; 1947-55 — D.B.S., *National Accounts*.  
 Column (2) — 1926-46 — D.B.S. estimates in 1935-39 dollars converted to 1949 prices by the Commission; 1947-55 — D.B.S. estimates in 1949 dollars.  
 Column (3) — The column records imports adjusted as per *National Accounts*, converted to 1949 dollars.  
 Column (4) — Column (2) as percentage of (1); Column (5) — Column (3) as percentage of (1).  
 Columns (6), (7), (8) — Calculated from D.B.S., *National Accounts*, and supplementary information made available by the National Income section of the Bureau.

Table 3

## CANADA: IMPORTS OF GOODS AND SERVICES, 1927-29, 1953-55

Items	Value of items (\$ millions)		Items as % of value of total imports of goods and services	
	1927-29 (average)	1953-55 (average)	1927-29	1953-55
Merchandise imports (adjusted).....	1,179	4,220	65.6	71.3
Tourist and travel payments.....	102	396	5.7	6.7
Freight and shipping payments.....	118	375	6.6	6.3
Interest and dividend payments.....	285	434	15.9	7.3
Other current debits.....	110	489	6.1	8.3
Total imports of goods and services.....	1,796	5,916	100.0	100.0
G.N.E.....	5,973	25,186		422

NOTE: *National Accounts* concepts of international payments are used in this table.SOURCE: D.B.S.: *National Accounts, Income and Expenditure*, various issues, and D.B.S.: *The Canadian Balance of International Payments*, various issues, together with data made available by the National Income Section of the D.B.S.

Table 4

## CANADA: A CLASSIFICATION OF MERCHANDISE IMPORTS; VALUE AS PERCENT OF TOTAL VALUE OF IMPORTS, SELECTED YEARS

	(percent of total merchandise import)									
	1926	1929	1937	1947	1949	1950	1953	1954	1955	
Selected agricultural and animal products, mainly food.....	20.16	18.88	15.48	14.21	13.71	14.89	10.93	13.17	11.66	
Furs, hides and skins, leather and textile products.....	21.27	18.01	16.79	17.05	13.65	13.04	9.90	9.16	9.18	
Selected capital goods and consumer durables (including parts).. Selected raw materials, mainly for the manufacture of durable goods.....	18.69	24.27	22.78	30.48	32.09	31.62	40.69	38.82	40.35	
Chemicals.....	15.43	15.30	16.40	11.42	12.21	12.23	11.33	10.70	11.89	
Fuels and lubricants.....	3.10	3.08	4.62	4.39	4.72	4.9	5.05	5.38	5.52	
Miscellaneous consumption goods.....	11.85	10.89	12.51	14.02	15.59	15.67	11.67	11.31	10.55	
	9.35	9.55	9.62	8.38	7.97	7.53	10.40	11.46	10.83	

SOURCE: This is a reclassification of the sub-groups in the published import statistics.  
See Appendix A of this study for the basis of the classification.

Table 5

**CANADA: IMPORTS IN  
SELECTED SUB-GROUPS AS PERCENT OF TOTAL IMPORTS  
1929, 1937, 1953, 1955**

Item	1929	1937	1953	1955
<b>Part I. Sub-groups which have increased as percentage of total imports between the late 1920's and 1952-53</b>				
Artificial silk and synthetic fibres and manufactures .	0.99	0.50	1.06	1.09
Books and printed matter . . . . .	1.39	1.79	1.56	1.56
Aluminum materials and products . . . . .	.46	.81	.76	.64
Electrical apparatus and supplies . . . . .	2.84	1.92	4.52	4.81
Petroleum and products . . . . .	5.99	7.27	8.17	7.93
Farm implements and machinery . . . . .	2.45	2.13	4.77	3.78
Machinery, excluding agriculture . . . . .	5.35	5.74	9.17	9.46
Engines, locomotives and boilers . . . . .	1.37	1.37	2.66	2.32
Motor vehicles and parts . . . . .	6.54	6.11	7.38	7.74
Airplanes and parts . . . . .	.18	.17	2.55	2.93
Refrigeration equipment . . . . .	.15	.14	1.27	.93
Scientific and educational equipment . . . . .	.39	.53	.68	.77
Other miscellaneous goods . . . . .	5.06	5.89	6.50	6.63
Drugs, medicine products . . . . .	.29	.43	.51	.52
Plastics . . . . .	.21	.24	.02	.03
Other chemicals . . . . .	1.75	2.91	3.77	4.21
<b>Part II. Sub-groups which are approximately the same proportion of total imports during the late 1920's and 1952-53</b>				
Fruits, nuts and vegetables . . . . .	3.85	4.41	3.81	4.06
Tea, coffee and chicory . . . . .	1.39	1.75	1.84	1.86
Wool, raw and unmanufactured . . . . .	.75	2.02	.98	.74
Glass products . . . . .	.81	1.06	.85	.94
Clay products . . . . .	.94	1.13	.93	.93
Other iron and steel products . . . . .	5.00	4.67	7.69	7.61
Paints, pigments and varnishes . . . . .	.48	.62	.48	.49
<b>Part III. Sub-groups which have declined as a percentage of total imports between the late 1920's and 1952-53</b>				
Grains and farinaceous products . . . . .	2.00	2.20	0.80	0.88
Sugar and its products . . . . .	2.15	2.55	1.37	1.39
Alcoholic beverages . . . . .	3.59	.99	.46	.43
Oils, vegetable, not food . . . . .	.92	.19	.53	.48
Other agricultural products (excl. rubber) . . . . .	2.27	2.03	1.17	1.36
Furs . . . . .	1.14	1.00	.48	.53
Hides, leather and products . . . . .	1.56	1.53	.59	.55
Other animal products . . . . .	2.70	1.36	.94	1.21
Raw cotton . . . . .	2.13	2.58	1.30	1.33
Manufactured cotton products . . . . .	2.60	2.46	2.06	1.83
Silk, raw and manufactured . . . . .	2.26	.99	.15	.15
Wool manufactures . . . . .	3.11	2.39	1.66	1.27
Flax, hemp, jute and manufactures . . . . .	1.18	1.29	.50	.50
Other textile products . . . . .	2.29	2.03	1.12	1.19
Wood, unmanufactured . . . . .	1.27	.81	.70	.88
Wood, manufactured . . . . .	1.03	.62	.52	.60
Paper . . . . .	1.13	.99	.89	1.11
Rubber and products . . . . .	1.75	2.40	1.15	1.59
Other non-ferrous metals (excl. electrical apparatus) . . . . .	4.15	3.89	3.79	3.64
Coal and products . . . . .	4.90	5.24	3.50	2.62
Other non-metallic minerals . . . . .	1.67	2.18	1.58	1.67
Primary iron and steel . . . . .	5.65	6.06	3.26	3.17
Fertilizer . . . . .	.35	.42	.27	.27

Table 6

VALUE OF MERCHANDISE IMPORTS: PERCENTAGE FROM U.K.,  
U.S. AND OTHER AREAS, SELECTED YEARS

(percentage)

Year	From U.K.	From U.S.	From other areas
1900 (fiscal).....	25.6	59.2	15.2
1912 (fiscal).....	22.4	63.4	14.2
1929.....	15.0	68.8	16.2
1934.....	22.1	57.2	20.7
1937.....	18.2	60.6	21.2
1947.....	7.4	76.7	15.9
1949.....	11.1	70.7	18.2
1950.....	12.7	67.1	20.2
1953.....	10.3	73.5	16.2
1954.....	9.6	72.3	18.1
1955.....	8.5	73.3	18.2

SOURCE: Computed from *Trade of Canada*, calendar years, various issues.

Table 7

MERCHANDISE IMPORTS: DETAILED GEOGRAPHICAL SOURCES,  
SELECTED YEARS*(percentage of total imports)*

Country or area	1929	1937	1950	1953	1955
United Kingdom.....	15.0	18.2	12.7	10.3	8.5
United States.....	68.8	60.6	67.1	73.5	73.2
Europe, excluding U.K.....	7.4	5.7	3.3	4.0	4.3
Belgium and Luxembourg.....	1.0	1.0	.7	.7	.6
France.....	1.9	.8	.5	.5	.5
Italy.....	.4	.4	.3	.3	.4
Netherlands.....	.8	.4	.3	.5	.4
Switzerland.....	.6	.4	.5	.5	.4
Germany.....	1.7	1.5	.3	.8	1.2
Other.....	3.4	1.2	0.7	0.7	.7
North America, excluding U.S.....	1.9	2.1	4.0	2.1	2.7
British West Indies.....	1.1	1.5	1.4	.5	.8
Cuba.....	.3	.1	.1	.3	.2
Other.....	0.5	0.5	2.5	1.3	1.7
South America.....	2.3	3.1	5.5	5.8	5.7
British Guiana.....	.3	.7	.7	.4	.4
Argentina.....	.7	.8	.3	.2	.09
Brazil.....	.1	.1	.9	.8	.7
Columbia.....	.5	.6	.4	.5	.5
Peru.....	.6	.6	.1	.1	—
Venezuela.....	—	.3	2.7	3.5	4.0
Oceania.....	1.7	2.8	1.8	1.0	.9
Australia.....	.3	1.5	1.0	.5	.6
New Zealand.....	1.2	.9	.4	.2	.3
Fiji.....	.3	.3	.3	.1	.1
Asia.....	2.6	5.6	4.6	2.6	1.8
India, Pakistan, Burma.....	.7	1.2	1.2	.6	.8
Ceylon.....	.2	.8	.6	.3	.3
Malaya and Singapore.....	.1	2.0	.9	.5	.6
China and Taiwan.....	.2	.6	.2	—	.07
Japan.....	1.0	.7	.4	.3	.8
Africa.....	.3	1.9	1.1	.7	.5
Gold Coast.....	.1	.1	.3	.1	.08
British East Africa.....	.1	.4	.5	.2	.3
British South Africa.....	.1	1.0	.2	.2	.1
Other.....	.0	0.4	0.1	0.2	.03

NOTE: — = less than 0.1%.

SOURCE: Computed from *Trade of Canada*, calendar years, various issues.

Table 8

CANADA: PERCENTAGE OF THE TOTAL VALUE OF VARIOUS CLASSES OF MERCHANDISE IMPORTS  
FROM U.K. AND U.S., 1926-29 TO 1949-53

	1926-29		1935-39		1949-53		1955	
	All countries Class as % of total imports	Percentage of class from	All countries Class as % of total imports	Percentage of class from	All countries Class as % of total imports	Percentage of class from	All countries Class as % of total imports	Percentage of class from
		U.K. U.S.		U.K. U.S.		U.K. U.S.		U.K. U.S.
Agriculture and vegetable products	19.78	20.98 44.39	18.61	13.27 31.97	12.92	5.30 40.87	12.0	5.2 47.5
Animal and animal products.....	5.51	9.26 61.72	4.03	16.63 45.41	2.50	11.20 62.80	2.2	12.3 66.1
Fibres and textiles...	16.64	38.10 38.30	14.25	44.56 36.14	10.46	29.64 46.65	8.0	25.0 50.1
Wood and wood products.....	4.70	8.29 85.31	4.36	11.93 81.19	3.36	3.27 91.67	4.1	3.0 90.3
Iron and steel products.....	24.50	6.41 90.37	23.50	14.04 82.26	33.32	10.48 86.40	34.0	7.0 89.2
Non-ferrous metals..	5.89	9.17 81.66	5.73	15.18 67.54	7.28	14.70 67.86	8.4	12.8 72.6
Non-metallic minerals	14.21	7.60 80.37	17.83	10.49 76.28	16.99	4.71 86.75	14.0	4.8 52.8
Chemicals.....	3.07	14.01 67.10	5.20	19.81 62.69	4.83	7.87 86.75	5.5	8.7 85.4
Miscellaneous.....	5.69	15.29 71.00	6.49	16.02 71.49	8.34	8.27 83.81	11.3	7.4 85.3
Total imports...	100.00	15.87 67.03	100.00	18.12 61.17	100.00	10.56 71.03	99.8	8.5 73.2

SOURCE: Calculated from calendar year reports of *Trade of Canada*.

Table 9

## CANADA: IMPORTS FROM AREAS OTHER THAN U.K. AND U.S.

Group as per-centage of total imports	(percentage)												
	1929						Group as per-centage of total imports	1953					
	Imports from area as percentage of total imports of each group							Imports from area as percentage of total imports of the group					
	Europe excl. U.K.	South America	North America excl. U.S.	Oceania	Africa	Asia		Europe excl. U.K.	South America	North America excl. U.S.	Oceania	Africa	Asia
Agricultural and vegetable products..	7.86	6.93	8.94	2.29	1.51	5.35	11.15	4.21	12.62	13.75	4.82	3.24	11.23
Animal and animal products.....	8.08	2.60	1.97	2.13	1.69	1.57	2.01	10.72	3.34	0.15	4.97	0.45	2.48
Fibres and textiles.....	14.75	0.03	0.02	0.78	0.11	8.12	8.83	6.89	2.54	1.70	3.28	1.48	4.68
Wood and wood products.....	5.50	6.37	3.26	1.81	1.18	4.73	3.67	4.41	0.46	0.09	0.04	0.15	0.51
Iron and steel products.	2.87	—	0.23	—	—	—	34.95	2.60	0.14	0.02	0.05	0.02	0.10
Non-ferrous metals....	5.26	0.10	0.03	—	1.11	0.79	8.31	5.66	4.39	0.14	0.03	2.05	1.79
Non-metallic minerals..	5.30	6.44	0.38	—	—	0.13	15.02	2.07	23.60	2.56	—	0.33	3.71
Chemicals.....	15.75	—	—	—	—	—	5.06	4.09	0.51	0.02	0.10	0.10	0.35
Miscellaneous products.	10.70	0.03	0.40	0.10	0.02	1.99	10.99	5.56	0.51	0.25	0.07	0.06	0.95
Total.....	7.4	2.3	1.9	1.7	0.3	2.6	100.0	4.0	5.8	2.1	1.0	0.7	2.6

Source: Computed from calendar year data in *Trade of Canada*.

Table 10  
A FUNCTIONAL CLASSIFICATION OF IMPORTS AND SOME INDICATORS OF RELATED CANADIAN ACTIVITIES

Functional distribution of imports			Related Canadian activities		
Group	Annual average 1928-29	Annual average 1953-55	Item	Annual average 1928-29	1953-55 as % of 1928-29
	(\$ current millions)			(\$ current millions)	
1. Food.....	205.3	481.2	1. Personal expenditure on food, including services.....	906.7	459.4
2. Beverages and tobacco.....	28.5	25.6	2. Personal expenditure on alcoholic beverages and tobacco.....	263.6	482.6
3. Clothing, personal furnishings, textiles and related materials.....	243.3	476.4	3. Personal expenditure on clothing and personal furnishings.....	655.4	281.2
4. Furniture, appliances and household radio and TV equip.....	16.9	149.7	4. Personal expenditure on furniture, appliances and radio.....	151.1	444.4
5. Miscellaneous manufactured consumer goods.....	75.6	345.4	5. Personal expenditure on goods...	2,931.2	377.5
6. Autos, trucks and parts.....	97.3	335.1	6. (a) Personal expenditure on automobiles, new and used.....	130.0	739.5
7. Machinery and equipment.....	157.8	964.1	(b) apparent gross supply of new autos, at producers' prices....		
8. Aircraft and engines.....	3.0	138.3	7. Public and private investment expenditure on new machinery and equipment.....	430.5	481.7
9. Materials for investment in structures and miscellaneous investment goods.....	75.6	261.0	8. Government expenditures on goods and services — defence.....		
10. Coal.....	66.5	122.8	9. Public and private investment in structures.....	847.5	456.9
11. Petroleum and products.....	70.2	358.9	11. (a) Personal expenditure on gas, oil, grease.....	73.0	627.3
12. Special items.....	11.1	50.5	(b) GVP — petroleum refining industry in Canada plus imports of refined petroleum products.		
13. Chemicals (selected basic).....	19.8	174.6	13. GVP manufacturing ind. in Canada.....	3,733.0	489.6
14. Miscellaneous unassigned industrial materials.....	167.0	504.7	14. NVP manufacturing ind. in Canada.....	1,676.0	479.0
15. Total merchandise imports...	1,233.0	4,376.0	15. Gross national production in current dollars.....	6,135.0	410.5

Table 11

SUMMARY OF IMPORTS OF INDUSTRIAL MATERIALS,  
SELECTED YEARS

(\$ millions unless otherwise specified)

Year	Imports of 'unassigned' materials (1)	Imports of materials assigned to specific uses (2)	Total imports of industrial materials (3)	Total merchandise imports (4)	Imports of materials as % of total merchandise imports (5)
1928	155.0	233.2	388.2	1,195.5	32.5
1929	179.0	234.7	413.7	1,270.5	32.6
1937	145.3	154.0	299.3	808.9	37.0
1938	93.7	115.0	208.7	677.5	30.8
1950	384.6	552.9	937.5	3,174.3	29.5
1952	527.3	544.8	1,072.1	4,031.0	26.6
1953	507.9	564.2	1,072.1	4,383.0	24.5
1954	457.7	521.2	978.9	4,093.2	23.9
1955	548.0	612.5	1,160.5	4,711.7	24.6

SOURCE: Column (1): Appendix Table 5 to this study.

Column (2): Includes vegetable oils, sugar for refining, materials for textiles, drugs and pharmaceuticals, materials for structures, unmanufactured tobacco, furs, hides and skins. Leather and veneers. The data have been gathered from the worksheets underlying Appendix D, Table V.

Table 12

## CANADA: IMPORTS CLASSIFIED BY DEGREE OF MANUFACTURE

(percentage of total imports)

Year	Raw materials	Partially manufactured	Fully or chiefly manufactured
Fiscal year			
1899	24.9	10.6	64.5
1913	21.8	9.3	68.9
1926	25.6	10.2	64.2
1927	25.6	9.6	64.8
1928	22.9	8.0	69.1
1929	23.1	7.7	69.2
1935	29.4	10.8	59.8
1936	29.0	9.8	61.2
1937	27.8	9.2	63.0
1938	—	—	—
Calendar Year			
1947	23.9	6.2	69.9
1948	27.9	7.4	64.7
1949	25.0	7.2	67.8
1951	24.6	7.5	67.9
1953	18.5	5.0	76.5
1954	19.4	5.0	75.6
1955	—	—	—

SOURCE: *Trade of Canada*, various years.

Table 13

## CANADA: GENERAL INDICATORS OF CHANGING IMPORT COMPETITION

Year	(1) Gross value of Canadian production (\$ millions)	(2) National income originating in manufacturing (\$ millions)	(3) Gross value of Canadian production minus exports of manufactured goods (\$ millions)	(4) Imports of manufactured goods	(5) Imports of manufactured goods as % of GVP of Canadian manufacturing	(6) Imports of manufactured goods as % of GVP of Canadian manufacturing less exports of manufactured goods
1929	3,833.4	1,175	3,142.5	960.0	24.7	30.5
1933	1,954.1	559	1,586.3	303.2	15.5	19.1
1937	3,625.5	1,089	2,926.2	576.6	15.9	19.7
1939	3,475.0	1,164	2,813.9	550.2	15.7	19.6
1946	8,035.7	2,782	5,326.9	1,409.7	17.5	22.3
1947	10,081.0	3,376	7,950.6	1,959.7	19.4	24.6
1948	11,876.8	3,834	9,613.6	1,900.8	16.0	19.8
1949	12,479.6	3,942	10,457.8	2,071.1	16.6	19.8
1950	13,817.5	4,471	11,571.6	2,323.0	16.8	20.1
1951	16,392.2	5,158	13,635.4	3,078.8	18.8	22.6
1952	16,815.2	5,396	13,914.1	3,174.1	18.8	22.8
1953	17,571.9	5,692	14,755.1	3,531.6	20.2	23.9
1954	17,510.0 <sup>a</sup>	5,426	14,691.1 <sup>b</sup>	3,301.4	19.4	22.5
1955	19,558.6 <sup>a</sup>	5,957	16,404.9 <sup>b</sup>	3,844.6 <sup>b</sup>	19.6	23.4

<sup>a</sup>D.B.S., *Shipments and Inventories*, December, 1955.<sup>b</sup>D.B.S., *Review of Foreign Trade*, 1955, 1956.Source: Gross value of Canadian manufacturing from D.B.S., *Manufacturing Industries of Canada*; (for 1952 and 1953, manufacturers' shipments have been used in lieu of gross value); national income originating from D.B.S., *National Accounts, Income and Expenditure*; imports of manufactured goods includes both partially manufactured and fully and chiefly manufactured, estimated from *Trade of Canada*.

Table 14

# SELECTED INDUSTRIES OR PRODUCTS: THE IMPORT SHARE OF THE CANADIAN MARKET AND EXPORT SHARE OF CANADIAN PRODUCTION, SELECTED YEARS

	Imports as % of domestic disappearance					Exports as % of Canadian production				
	1929	1937	1950	1952	1953	1929	1937	1950	1952	1953
A. Import share of the market large, and stable or increased										
1. Total industrial machinery . . . . .	61.2	56.7	54.6	58.2	—	6.4	14.9	10.9	14.0	—
1.1 Construction machinery . . . . .	71.1	69.0	67.1	74.3	—	n/a	n/a	n/a	n/a	n/a
1.2 Logging, sawmill and wood working machinery . . . . .	58.8	—	27.0	78.4	—	n/a	n/a	n/a	n/a	n/a
1.3 Printing and publishing machinery . . . . .	58.2	57.1	98.8	97.9	—	1.0	0.4	0.2	0.3	—
2. Mining and oil well equipment . . . . .	81.3	59.7	93.6	90.5	—	2.9	1.9	51.3	37.2	—
3. Carpenters' and mechanics' tools . . . . .	41.2	36.6	30.7	38.6	—	6.3	21.3	3.1	4.3	—
4. Large electrical appliances . . . . .	27.2	17.8	17.2	33.0	36.1	7.0	21.4	1.8	1.9	1.0
5. Medicinal and pharmaceuticals . . . . .	20.3	16.8	25.4	25.2	25.0	5.2	7.4	7.3	7.3	7.8
6. Cotton textiles . . . . .	21.4	15.6	14.9	21.1	—	0.9	3.9	2.4	0.4	—
B. Import share of the market large, but has declined										
1. Selected industrial machinery										
1.1 Elevating and conveying machinery . . . . .	48.4	27.3	35.3	37.3	—	n/a	n/a	n/a	n/a	n/a
1.2 Metal-working machinery . . . . .	77.6	84.8	86.6	76.4	—	n/a	n/a	n/a	n/a	n/a
1.3 Compressors . . . . .	47.1	35.0	46.9	38.2	—	n/a	n/a	n/a	n/a	n/a
2. Heavy electrical apparatus . . . . .	31.7	23.4	23.1	28.0	28.1	0.8	3.9	3.1	6.6	3.8
3. Farm machinery . . . . .	65.8	54.0	69.7	62.7	—	49.4	37.5	57.3	50.1	—
4. Office machinery . . . . .	43.0	25.8	29.3	50.0	—	10.3	28.1	6.0	32.1	—
5. Professional and scientific equipment . . . . .	85.3	66.1	69.8	73.2	—	33.3	9.1	7.8	15.7	—
6. Misc. durable machinery . . . . .	47.3	35.1	36.2	33.7	—	16.8	13.3	2.4	4.8	—
7. Motor vehicles . . . . .	22.7	12.7	11.7	8.3	11.1	25.2	17.7	4.2	12.1	7.0
8. Motor vehicle parts . . . . .	65.7	48.1	28.0	45.3	46.2	7.5	6.7	5.3	6.7	5.6
9. Small electrical appliances . . . . .	31.0	8.5	11.6	20.9	25.8	n/a	n/a	n/a	n/a	n/a
10. Radio and electronic equipment . . . . .	40.8	17.2	23.6	25.1	29.2	n/a	1.3	5.5	11.8	11.7

(TABLE 14 cont'd)

# SELECTED INDUSTRIES OR PRODUCTS: THE IMPORT SHARE OF THE CANADIAN MARKET AND EXPORT SHARE OF CANADIAN PRODUCTION, SELECTED YEARS

	Imports as % of domestic disappearance					Exports as % of Canadian production				
	1929	1937	1950	1952	1953	1929	1937	1950	1952	1953
<b>B. Import share of the market large, but has declined (continued)</b>										
11. Glass and products.....	43.4	28.6	28.0	45.3	46.2	0.7	8.2	2.0	1.0	3.2
12. Petroleum manufactures.....	23.5	10.5	17.0	16.7	—	1.2	1.0	—	0.8	—
13. Woollen textiles.....	51.8	27.4	24.1	23.4	—	6.1	4.6	4.0	3.1	—
14. Synthetic textiles and silk manufactures.....	66.0	18.2	14.9	19.5	—	2.8	6.4	3.5	2.0	3.2
15. Durable containers.....	44.3	45.0	24.8	41.4	—	2.8	8.3	1.0	1.1	—
<b>C. Import share has been small but it has increased</b>										
1. Rubber manufactures.....	4.2	2.5	5.9	7.8	7.9	33.2	24.0	5.1	6.2	2.9
2. Bicycles and parts.....	11.6	12.9	13.3	19.8	27.7	0.5	1.8	0.4	0.3	0.3
<b>D. Import share has been small and has remained constant or decreased</b>										
1. Selected Industrial Machinery										
1.1 Pulp and paper machinery.....	19.4	11.8	16.0	18.8	—	—	—	—	—	—
1.2 Boilers, heat exchangers and pumps.....	15.6	8.9	5.3	13.8	—	—	—	—	—	—
2. Office and store furniture and fixtures.....	22.2	15.2	4.9	8.2	—	—	—	—	0.2	—
3. Locomotive and railroad cars.....	3.2	2.7	14.6	5.4	—	0.2	0.5	27.6	4.7	—
4. Miscellaneous electrical apparatus.....	14.1	9.0	6.8	9.2	12.2	2.6	3.0	2.9	7.4	3.3
5. Paints, varnishes and lacquers.....	18.9	16.9	16.9	14.2	—	1.8	3.9	4.3	7.6	3.5

Table 15  
CANADA: SELECTED INDICATORS OF IMPORTS AND EXPORTS OF MANUFACTURED GOODS,  
1952 TO 1955<sup>a</sup>

Industry	Index of import share of the Canadian market (percentage)			Index of export share of the Canadian market (percentage)		
	1952	1953	1954	1952	1953	1954
1. Rubber footwear.....	1.94	4.00	5.32	7.91	1.54	0.97
2. Tires, tubes and other rubber products.....	8.63	8.47	8.09	9.38	6.95	3.55
3. Boots and shoes and misc. leather products.....	5.49	7.21	6.80	7.00	2.08	2.15
4. Leather.....	15.34	18.28	17.91	17.19	9.58	14.14
5. Cotton goods.....	26.70	30.40	28.44	27.29	3.05	1.10
6. Furniture.....	2.95	3.91	4.60	4.80	0.22	0.27
7. Agricultural implements.....	66.29	68.32	77.21	79.29	51.24	43.39
8. Hardware, tools and cutlery.....	10.66	11.48	12.41	12.62	2.91	1.85
9. Office and business machinery.....	12.44	15.65	17.56	17.12	7.29	5.36
10. Machine tools and industrial machinery.....	62.04	63.26	61.92	70.87	15.86	12.79
11. Primary iron and steel products.....	33.95	35.94	33.92	31.65	17.27	18.91
12. Motor vehicles.....	8.32	11.04	10.40	11.66	12.05	1.76
13. Motor vehicle parts (excl. engines).....	42.43	43.33	44.58	47.25	6.70	5.53
14. Heavy electrical apparatus.....	27.75	28.04	30.89	32.43	6.51	3.77
15. Radios and parts.....	25.57	29.71	27.75	26.95	12.04	11.94
16. Refrigerators, parts, and household machinery.....	38.21	39.68	30.08	29.54	1.98	1.17
17. Medicinal and pharmaceutical preparations.....	20.76	20.25	21.98	19.62	5.79	6.09
18. Weighted average, using 1952 domestic disappearance as weights for import shares and 1952 production as weights for export shares.....	29.44	31.17	31.13	32.50	11.55	9.32
						8.98

<sup>a</sup>These ratios should be used as indicators only. Neither resources nor detailed information were available for refinements of the measure.

SOURCE: These ratios are based on compilation of gross shipments by the industries, and sub-groups of the published import and export data (in *Trade of Canada*) roughly comparable to the production series. The shipments data were taken from D.B.S.: *Inventories, Shipments and Orders in Manufacturing Industries*, December, 1955.

## ANALYSIS OF IMPORT TRENDS

### *I. Questions and Themes*

#### *(a) The Questions*

Chapters 4 and 5 of this study contain speculations about the prospects for Canada's imports. In contrast, this chapter looks back at the record; our interest is in explaining past experience, and thus providing a firmer basis for launching into the wild blue yonder. What is there to be explained about trends in Canada's imports? Or perhaps, what kinds of information would be helpful to forecasting import prospects? We would want to know why Canada's imports have been so large relative to the national output, and what is the basis of the widely differing roles of imports in the Canadian consumption of various goods and services. We should explore the comparatively small decrease in the size of Canada's imports relative to national output. The basis of the main changes in the composition and geographical source of Canadian imports, observed in the preceding chapter, would be relevant information. In particular the decrease in the share of Canadian imports originating in the United Kingdom and increase in the share from the United States requires explanation. We want to know also the extent and basis of long-run changes in the competitive position of Canadian manufacturing of various goods *vis-a-vis* foreign sources of supply, and the effects on imports of changes in the structure of Canadian demand for goods and services. The problems of balance of payments adjustment and, in particular, the role of imports in this adjustment must be analyzed.

In the confines of this study definitive answers cannot be provided to all these questions. Indeed, the suggestions and explanations provided here should be treated as rough working judgments based on the available evidence. The rationale for the chapter is quite simple; it is not possible to speculate about import prospects without some understanding of our historical experience.

(b) *Themes or Theses*

Before considering the questions in any detail, it may be a helpful guide to have the themes or theses regarding Canada's import experience set down at the outset. A number of such ideas as the following run through the chapter.

First, the size of Canada's imports is just one side of a coin marked Canadian international specialization and trade. This trade is very largely determined by private rather than governmental decisions. The international specialization and, thus, the imports are so large mainly because those who make the private decisions find that the arrangement pays.

Second, while in one sense Canada's international specialization and trade is quite large, in another sense it is not. To a very considerable degree, Canada is now integrated into the North American economy. Canada's exports to and imports from areas other than the United States are not very much larger relative to Canadian production than are those of the United States with areas other than North America compared with United States output.

When considering long-run trends in Canada's import position, one important theme of this study is that the experience provided by the late 1920's and between 1951 and 1955 is close to a normal peacetime full-employment import position for the Canadian economy. To put the point the other way: in our judgment, the experience between 1930 and 1950 is not, at least in its raw form, a particularly good indicator of the long-run trends. The data of these years were greatly influenced by a variety of short-run considerations and incidents. Between 1930 and 1939 Canada experienced a severe depression and partial recovery; during the same period a sharp increase took place in Canadian restrictions on imports, followed by a return to a policy which was not very different from that which existed in the late 1920's. The war produced abnormal import relationships. During the early postwar years imports were also subject to a number of short-run disturbances due to the combination of inflation, quantitative trade restrictions, foreign exchange controls, government foreign lending and European reconstruction. A main effect of many of these factors was to restrict the demand for or the supply of imports below that which would normally be expected. Only in recent years has Canada's import position returned to something like a normal one. This is not to say that all the experience between 1930 and 1950 is irrelevant to the study of imports. It is highly pertinent to understanding short-run effects of various situations and policies. Also, if the short-run elements can be separated from the more persisting forces, the experience provides some sight on long-run trends.

It will also be argued that the decrease in the level of imports relative to gross national production reflects, in part, a slight improvement in the average competitive position of Canadian manufacturing activities *vis-a-vis* foreign sources of supply. Those factors which are usually advanced to explain long-run declines of foreign trade, such as the growth in the production of services and increases in trade restriction, appear not to have been sufficiently strong to explain the Canadian performance. It is true that the consumption of

services, which have relatively low import content, have increased in importance in Canada. But, at the same time, the Canadian consumption of goods has shifted toward machinery and equipment and consumer durables which have a rather high import content. The net effect on the level of imports of changes in the mix of goods and services demanded appears to be small. There has been relatively little change in the level of Canadian protection, but those long-run changes which have taken place would tend to increase imports rather than decrease them.

Looking at imports in some detail, a small decrease in the import shares of the Canadian market for many types of goods has been found; this corresponds with the judgment regarding the improvement in the competitive position of the Canadian manufacturing noted above. The emphasis should be on small. It follows that the explanation of rapid growth in imports of some items and very slow growth in imports of other items is primarily to be found in changes in the Canadian consumption of the items rather than in major changes in the division of the Canadian market, between imports and domestic sources of supply. There are such exceptions, as crude petroleum. It will also be argued that there have been relatively small changes in the proportion of imports of particular classes of goods derived from one geographical source compared with another; that is, if the British had a certain share in the Canadian imports of electrical machinery 30 years ago, in general they have not a very different share today. This indicates that the main proximate explanation of the over-all decrease or increase in the share of particular areas in Canadian imports lies in the change in the content of those imports rather than in major shifts in the sharing of the Canadian imports of particular types between sources of supply. Of course there are qualifications to this proposition, too; for example, with respect to cotton textiles.

While Canada has, on a number of occasions had to undergo long-run structural adjustments in her international economic relationships during this century, her history is not one of repeated and protracted balance of payments difficulties nor of major changes in her long-run terms of trade. This is partly because of the development of some favourable export opportunities, and partly because of somewhat fortuitous events, such as the special financial arrangements during two world wars. But the history is partly due to the very powerful ways in which the level of Canadian imports have become adjusted to changing economic conditions. Nor, with one or two exceptions, has Canada had great short-run balance of payment problems either, though she has been faced with a repeated problem of dealing with cyclical fluctuations in the availability of foreign exchange. The difficulties have been relatively slight in the past because imports have fallen very sharply in periods of declining economic activity. However, this is a less attractive feature of Canadian experience; we do not find very substantial short-run difficulties in the Canadian balance of payments because Canadian economic activity has been allowed to vary widely, corresponding with fluctuations in exports and autonomous capital inflows.

Having stated these propositions, let us now turn to the main body of argument and analysis.

## *II. The Size of Canadian Imports*

While the ratio of Canadian imports to the output of goods and services is somewhat smaller now than during some parts of the last half century, the ratio is still quite high compared with many other countries. Imports of goods and services amount now to about 25% of G.N.E. If the imports were valued on a basis comparable with G.N.E. the ratio would be well above 25%. If the imports were compared with that part of Canadian output which could potentially enter into international commerce, the ratio would probably be in excess of 40%.

Why are Canadian imports so large? Why do Canadians import so many things which they are capable of producing? These questions should be cast a little more broadly; why does Canada specialize and trade internationally to such a large degree? Since the bulk of the decisions about what will be bought and produced in this country, the kinds of trading which people will undertake, the jobs they will do and investments they will make are private decisions, in a very superficial sense the answer to the question must be that people find themselves better off engaging in a larger rather than a smaller volume of international specialization and trade. But why is this so? Still in a superficial way, the answer must be, for example, that by buying our coffee and bananas and a substantial part of our textiles and machinery, by selling wheat, paper and minerals to other people, we are permitted to have a higher standard of living than could otherwise be obtained. This is because we are comparatively cheap sources of supply to the world for a narrow range of staple products and are comparatively high-cost producers of coffee, bananas and, in our example, of some kinds of textiles and machinery. Regarding the whole range of imported tropical products, there is never any question of this proposition; the disagreements or doubts arise when the trade is, for example, of Canadian paper or minerals for British or American industrial machinery and cotton textiles. In these cases, it is not a question whether Canada could or could not produce more of the items which are imported and export less of the kind of things which are exported; it is purely a question of which, out of a set of possible economic arrangements, is considered better for Canadians, taking account of the economic, political and other standards by which better or worse may be judged.

It is not the purpose here either to belabour the virtues of international specialization or to deal at any length with the basis of Canadian international specialization; however, a reminder of the basic position of the Canadian economy in the world is in order. In the economic literature a central part of the explanation of the kinds of international specialization and trade which are observed, centres around the relative scarcity of various kinds of productive resources and labour and productive instruments. Substantially, this argument says that if a country has a relative abundance of particular resources or an

abundance of labour relative to resources, then in the production of those things which make relatively intensive use of these abundant productive inputs, the country will be a relatively cheap source of supply. This point carries us quite a long way in viewing the position of the Canadian economy. First, it is clear to almost everybody that Canada has a rather large ratio of certain minerals, forests and grain-growing land compared with our population, compared with the ratios of other countries; it follows that these things will be relatively cheap in Canada. It also follows that anybody who wants to obtain labour or capital to run textile factories or a machinery industry is going to have to compete with other industries which have very powerful economic attractions based on world market opportunities. It is also widely held that, on the North American continent, labour is a relatively scarce and expensive type of productive input, compared with capital; it follows that those kinds of activities which use relatively large amounts of labour are going to be rather expensive operations in North America.

A second factor of very great significance in answering the question of the importance of international specialization and trade for Canada is the fact that Canada is more or less part of an integrated North American economy. Canadians have tastes, incomes and productive techniques which are more like those in the United States than in any other country. Indeed, at present, the non-North American segments of our international trade are not really very much larger than the non-North American segments of the trade of the United States; in other words, very much of our trade is really like an inter-regional trade within a large country. Cast in this form the question then becomes one of the characteristics of the region or regions which underlie the interregional specialization. The question cannot be usefully explored, however, without recognizing that the trade barriers on each side of the border are such that the Canadian secondary manufacturing activity is very largely carried on for the Canadian market alone. The point is that our technique and the minimum efficient scales of production are essentially North American; our market for manufactures is very largely Canadian. It follows that, in those lines of production in which the minimum efficient scale is comparatively large, the Canadian economy will find itself in a weak competitive position. In other words, given the technique of production, given the factor scarcities, given the trade restrictions and the dividing up of the market area which follows, Canada will be a high-cost producer of those items in which the economies of large-scale production are considerable.

### ***III. Differences in the Role of Imports in the Canadian Consumption of Various Goods***

Among various imported goods, the import share of the Canadian market varies all the way from zero to 100%. Some of the extreme cases, that is where imports consist of almost all or practically none of the Canadian market, are based on fairly obvious considerations. Imports account for 100% of the Canadian consumption of raw cotton, coffee, tea, cocoa and palm oils,

because these are tropical products of which no one would suggest that Canada should enter into production. At the opposite extreme there are items for which transfer costs are so enormous relative to the value of the product that practically no international commerce takes place. Among these items would be such things as aggregates for making concrete, and many personal services. In between these limits there is a very great variation in the role of imports in the Canadian economy. For such things as printing and publishing machinery almost 100% of the Canadian supply is imported; for electrical wire and cable, less than 5%.

This section is concerned with reviewing some of the differences in import shares, particularly as regards manufactured goods. The comments are exploratory or illustrative rather than exhaustive, because this is a very complex area of analysis. Differences among various goods in the share of the Canadian market supplied by imports depend on a number of considerations, including the comparative cost of production and marketing from various locations; the tariff treatment accorded various goods; institutional arrangements regarding the ownership and control and engineering design of plants in Canada; and the balance of payments position of Canada at the time under consideration.

Data on import shares of the Canadian market for various goods were set out in Chapter 2; for recent years this material has been reorganized in this chapter, as Table 16. Various industries or product groups have been ranked according to the proportion of the Canadian market supplied by imports. The tropical and semi-tropical items have been omitted. As each category in the table contains a number of items among which imports are more or less important, care must be exercised in interpreting the data. However, the ranking, crude as it is, may throw some light on the characteristics of items for which imports are relatively large or small.

The import share appears to be very large for a broad range of iron and steel machinery and equipment items, but a good deal smaller for electrical than for many other kinds of machinery. In the middle ranges of import shares are found such things as glass products, medicinal and pharmaceutical products, woollen textiles, cotton textiles, basic chemicals and motor vehicle parts. In the lower ranges one finds such groups as manufactured rubber products, motor vehicles, books, magazines and papers, petroleum manufactures, electrical wire and cable, electric cook stoves, batteries, lighting fixtures, transformers and parts, and cement and building stones.

The competitive position of any particular industry *vis-a-vis* foreign supplies depends on the joint effect of a variety of such factors as comparative production costs, tariffs and various transfer costs. However, let us initially consider separately each factor bearing on competitive positions, indicating some of those industries for which the particular factor plays an important role. The more important influences appear to be differences in the minimum efficient scale of production, the size of the market, the speed of technical change and

the complexity of productive operations, the factor intensities in production of various goods and the tariff treatment.

For those types of production in which the minimum efficient scale of production in the United States is very large or in which the typical establishment in the United States is highly specialized though it may not be absolutely large, there is a general presumption that the import share of the Canadian market will also be large. The typical scale and specialization of production in the United States may be large for a variety of reasons. In the manufacture of large and complicated machinery and equipment, the efficient scale given a comparatively large market is set by capital requirements for heavy material-handling equipment and large or intricate machine tools, together with the problems of sustaining an experienced work force in the face of substantial fluctuations in activity, and of accumulating experience in design and manufacture of particular types of equipment. In the production of smaller, less complex, general purpose machinery, the typical scale of establishment appears to be smaller than for large, complex, specialized machinery except where mass production offers large economies. Thus the competitive position of Canadian manufacturing appears to be worse, and the imports appear to capture a larger share of the market for large complex specialized machinery than for small, less complex and general purpose machinery, other things being equal. Thus, the import share has for a long time been larger for printing equipment, machine tools and heavy construction machinery than for elevating and conveying equipment and small compressors. In the production of consumer durables, the minimum effective scale of production may be large because of the economies of specialized machinery and long runs on that machinery, and at the level of the firm, the economies of larger scale financing and advertising programmes.

The presumptions about scale of production and the role of imports must be modified in some degree by the comparative size of the Canadian market. There is a general presumption, other things being given, that imports will account for a smaller share of the Canadian market, the larger the Canadian market is relative to that in the United States. On the average the Canadian market would be no larger than one-twelfth of that in the United States; however, in some cases it may be as large as one-quarter or one-fifth. The ratio of Canadian sales to American sales appears to be higher than the average for hydraulic turbines, pulp and paper machinery, some types of electrical apparatus and many types of mining machinery. It is not surprising to find that imports account for a smaller proportion of Canadian consumption of such equipment than is found for many machinery products in which the production arrangements and problems are otherwise quite similar, but the relative size of the Canadian market is smaller.

There is a general presumption that import shares will be larger for complex and rapidly changing goods than for products in which the manufacturing processes are simple or the changes in the product are less rapid. Mass production of complicated goods, particularly those subject to fine tolerances, requires

a much larger scale of operation than for less complicated commodities. This factor appears to be relevant to the apparently weaker competitive position *vis-a-vis* foreigners of Canadian manufacturing of refrigerators than of stoves. There is quite commonly a time lag in the Canadian development of manufacturing operations, behind that in the United States. The economies of national advertising may also play a part.

The Canadian competitive position in the manufacture of some goods is a by-product of developments in the production of other commodities in Canada. Thus the comparatively rapid growth of mining in Canada and the concentration and refining of minerals has provided the basis for much of the development of the inorganic chemical industry in Canada, and thus the comparatively small role which imports of inorganic chemicals play in the Canadian consumption of such materials. Recently the growth in the petroleum industry has had similar effects.

There is a general presumption also, that imports from non-North American sources will be large for products which require comparatively large volumes of labour in production, assuming that the products enter into international commerce. Relative cheapness of overseas supplies of labour would provide somewhat less competitive strength to import sources of supply for differentiated products, in which design and service factors are important considerations at the time of purchase. Thus imports from overseas appear to be comparatively large for standardized consumer goods and capital goods like men's shoes, rubber footwear, the more standardized types of electrical apparatus and the more standardized types of cotton textiles than they are for women's shoes, highly-styled fabrics and the household electrical goods.

There are a number of instances of historical specialization in production which do not fit easily into the above generalizations, but which provide the basis for rather large continuing imports into Canada. We have in mind Swiss watches, British crockery and cutlery and, prior to the war, German chemicals.

Finally, various goods are accorded quite different tariff treatments, sometimes the treatment differing among goods which are otherwise in similar competitive positions *vis-a-vis* foreign sources of supply. On the surface, it appears that production conditions are similar in the manufacture of industrial machinery and many of the heavier types of electrical apparatus; yet the tariff treatment of the former appears to be less of a deterrent to imports than in the case of the latter. As judgments in these matters are difficult to make, apparent differences of tariff treatment must be investigated with great care.

#### ***IV. The Relative Decline of Imports***

Measured by the size of foreign trade relative to output, it appears that the Canadian economy is slightly less open now than it was in the late 1920's; so far as can be judged on the basis of sketchy information it would also appear that there has been a decline in the openness of the economy compared with that which existed prior to World War I. Data on the decline

were set out in Chapter 2. (Also see Table 19.) Similarly it was shown in the study of exports prepared for the Commission that a decline had taken place in the ratio of Canadian exports of goods and services to gross national production.<sup>1</sup> This section is concerned with the reasons for these trends, concentrating first on the slight decline in the ratio of merchandise imports.

The smallness of the decline in Canadian imports relative to output deserves special attention. Comparing 1952-55 and 1926-29 the decrease in the ratio of merchandise imports to G.N.P. is only 10% (See Table 17), despite such an important development as western Canadian oil production. The decrease is smaller than that experienced by many other countries, including the United States, the United Kingdom, and Australia. For the invisible imports, the only sharp decrease in the ratio, relative to Canadian gross national production, was in the interest and dividend account.

Some years ago there was considerable discussion in the economic literature of the future of foreign trade. It was widely recognized that foreign trade had declined relative to production, and that this was a comparatively long-run phenomenon. The terminal date for much of the data was in the 1930's; as foreign trade was unusually low during that period some observers obtained an exaggerated notion of the degree of long-run decline in foreign trade. However, when the time series are extended to recent years the general point remains; foreign trade has exhibited a slower rate of growth than output for a relatively long period of time. Various and somewhat conflicting explanations have been advanced. Some commentators thought that the dominant reason was the spread of industrialization; others argued that the main factor was the increase in trade barriers. Still others argued that the main or at least an important factor was the increase in the production and consumption of services, including government services, in which relatively little international commerce takes place. Others argued that a very important factor was the relative decline of international capital movement.<sup>2</sup>

The change in the relative size of foreign trade for any particular country depends on a number of factors. A deterioration in the demand for the country's export products (which might be due to increased import restrictions by foreigners) tends to decrease the size of the country's foreign trade relative to its output. A deterioration in the supply conditions in the country's export industries compared with those in its import-competing industries would also tend to decrease foreign trade. Increased relative expensiveness of imports, including those due to increases in the country's trade restrictions, will tend to reduce the size of foreign trade. Changes in the mixture of goods and services demanded will influence the size of the country's foreign trade but some changes in mix will tend to increase and others tend to decrease the size of the foreign trade. A decrease in the capital inflows will tend, at least in the short run, to decrease imports of goods and services relative to output.

<sup>1</sup>R. V. Anderson, *The Future of Canada's Export Trade*, Ottawa, 1957.

<sup>2</sup>See Bibliography for reference to literature on the future of world trade.

What appears to be the explanation of the relative decline of foreign trade for Canada? Considering the demand for exports it can reasonably be argued that, with only two important exceptions, the world demand for Canada's exports has been favourable to a high level of exports compared with national production. Foreign demand and trade restrictions by foreigners have changed unfavourably to Canada only for grains, some other agricultural products and for certain highly fabricated manufactures. Indeed, as it is shown in the study of Canada's exports, the ratio of Canada's non-agricultural exports to G.N.P. was markedly higher in recent years than in the late 1920's. The relative decline in exports of agricultural products was large enough to reduce slightly the ratio of total merchandise exports to G.N.P. We rather doubt that the relative decline in the openness of the Canadian economy can be sufficiently explained by changes in the demand for Canadian export products.

Undoubtedly, the Canadian consumption of services, including retail and wholesale services, now accounts for a larger proportion of the Canadian national output than they did 30 years ago. This factor clearly works toward reduction of the relative importance of foreign trade because these services have a relatively small import content. At the same time, however, the Canadian consumption of durable household equipment, miscellaneous manufactured consumer goods, machinery and equipment and military equipment has tended to become a larger part of the total Canadian demand for goods and services. (See Table 18.) These items have higher than average import content. Thus, it is our judgment that changes in the mixture of goods and services demanded in Canada has, on balance, not tended to alter the relative importance of foreign trade for the Canadian economy, by any significant degree.

Turning to the capital flows, apparently the net inflow of capital into Canada, large as it was between 1950 and 1955, is somewhat less important than during the late 1920's; it is clearly very much less important than it was in the years immediately preceding World War I. This factor is of some significance in explaining the relative decline of imports compared with gross national production.

For two products, petroleum and rubber, there has been a very striking change in the position of the Canadian economy relative to imports. The development of Alberta petroleum is widely known. In the absence of this development there is little question but that imports of petroleum would be very much larger now than they are. It is very difficult to obtain any precise notion of the over-all effect of this development on the ratio of merchandise imports to G.N.E. It appears that the imports of petroleum would have increased more rapidly than G.N.E. even if there had not been a development of Canadian petroleum; indeed, in the absence of petroleum development, if G.N.E. were what it now (i.e., in 1955,) is, the ratio of imports to G.N.E. would amount to about 20%, not very different from that in the late 1920's. On the other hand, the petroleum development has been associated with a considerable part of the capital inflow which has taken place in recent

years, which in turn has made imports larger than they otherwise would be. The development of Canadian production of synthetic rubber during and since the war has tended to decrease the imports of an item which would otherwise have grown somewhat more rapidly than G.N.E. However, imports of rubber were a sufficiently small item in any case, so that they would not make a very big difference in the over-all ratio of imports to output.

So far as we can see there has been no major change in the relative expensiveness of imports, of a nature unfavourable to Canada's foreign trade. The long-run changes in the terms of trade between export and import-competing items, though small, have been favourable to exports and to imports. (See Table 20.) While the changes in Canada's foreign trade policy have been minor, in a long-run sense, what changes have taken place have been favourable to the increased imports. In other words in so far as the supply of imports is concerned it would appear that the changes imply larger rather than diminished foreign trade.

Finally, we come to the question of the spread of industrialization. There are serious doubts that there has been any major change in the relative position of Canadian industry so far as knowledge and so far as its basic resource availabilities are concerned. However, for Canada there is another aspect to the matter, namely, economies of larger scale operation. Canada carries on quite a number of activities in production units or in unspecialized ways which are widely acknowledged to be of less than the minimum efficient scale. However, there has already been some increase in the size of the Canadian market during the last 30 years, and there are indications that some small movement toward the minimum efficient scale of operation has taken place in a number of industries in Canada. In Chapter 2 it was shown that the quite common experience has been for the imports to become a slightly smaller proportion of the Canadian market for manufactured goods, and this in spite of some small decreases in the protection accorded the Canadian manufacturer. It is hard to come away without the judgment that there has been some small improvement in the competitive position of the Canadian manufacturing industry and that this is an important factor in explaining the relative decline of Canadian foreign trade.

To sum up, the relative long-run decline in the ratio of merchandise imports to Canada's G.N.P. has been slight, and partly fortuitous. Neither the change in the mixture of goods and services demanded in Canada nor the change in long-run international terms of trade faced by Canada contributed much to the decline. Comparing the late 1920's and present years, there has not been a great over-all change in the relative world demand for Canadian goods or the comparative size of the inflow of capital into Canada, but such changes as have taken place tend to reduce Canadian foreign trade relative to output. Changes in Canadian commercial policy work in the opposite direction. It is our impression that a slight long-run improvement in the competitive position of Canadian manufacturing activity has taken place, and that this factor has contributed to the decline of imports. During the first half of 1956, imports

have been much higher relative to Canadian output than the average between 1953 and 1955; but, in our judgment, this experience is a temporary feature of an overloaded economy doing many new things.

Regarding the invisible items in Canada's import bill, it was pointed out in Chapter 2 that much the most important change has been the relative decline of the interest and dividend payments to foreigners compared with G.N.E. Indeed, the change in this item alone accounts for the bulk of the relative decline of the invisibles and for the bulk of the relative decline in the over-all ratio of imports of goods and invisibles to G.N.E. The much slower growth in the payments of interest and dividends to foreigners is proximately due to a less rapid growth in the gross Canadian liabilities to foreigners than in G.N.E., at least comparing the present foreign indebtedness to Canadian output ratios with those which existed 30 years ago.

## ***V. Changes in the Composition and Source of Canadian Merchandise Imports***

### ***(a) Introduction***

This section is restricted to merchandise imports, specifically to explaining changes in the composition and geographical source. It will be recalled from Chapter 2 that very marked changes in the composition of these imports have taken place. Much the most striking trend has been the relative decrease in the proportion consisting of, what might be called, consumer soft goods, that is foods, tobacco, alcoholic beverages, clothing, textiles, personal furnishings and closely related materials. This has been paralleled by the increasing importance of imports of machinery and equipment, consumer durables and miscellaneous manufactured consumer goods, together with materials for such uses.

Earlier in this chapter it was argued that the changes in the mixture of goods and services demanded in Canada has not been an important factor explaining the changes in the over-all ratio of imports to gross national production. However, the changes in the structure of Canadian demand are the most important element explaining the changes in the content of imports. In Chapter 2 it was shown that the imports which had increased rapidly were items for which a comparatively rapid growth in Canadian consumption had taken place, and that import items which had grown more slowly were generally items for which Canadian consumption had increased less quickly. Of course, this is not the whole story. There have been a few fairly dramatic changes in the competitive position of certain Canadian industries, a few important changes in the tariff structure, and certain gradual shifts in the competitive position of imports in competition with Canadian manufactures, all of which have had some bearing on the content of Canadian imports.

### ***(b) Changes in the Composition of Canadian Demands for Goods and Services***

Changes in the mixture of goods and services demanded in Canada are probably the most important factors underlying the changes in composition of

Canadian imports. For example, there has been an increase in the import of machinery and equipment; autos, trucks and parts; household appliances and miscellaneous consumer durable goods, from about 25.9% of the total imports in 1928 and 1929 to something more than 38% of total imports at the present time. (See Table 21.) Looked at another way the imports of these items have increased from about \$319 million in 1928-29 to about \$1,670 million between 1953 and 1955 (measured in current dollars), this is a more rapid rate of increase than the growth in (current dollar) G.N.E. The central explanation of the rapid growth of this group of imports lies in the comparatively rapid increase in Canadian consumption of these items. A roughly comparable group of domestic expenditures would consist of that on consumer durables (less furniture and home furnishings, items which have relatively low import content) on auto parts and accessories, together with the public and private investment in machinery and equipment. This group of items has been estimated to have increased in value (measured in current dollars) from about \$628 million per annum between 1926 and 1929 to almost \$3.5 billion per annum between 1952 and 1955; in other words, from about 10.8% of G.N.E. to something like 14.2% at the present time. Selected data on the Canadian expenditure on and imports of consumer durables and machinery and equipment have been set out in Table 16.

There are many other examples of the correspondence between different rates of growth in Canadian demand and the growth in various imports. Within the food group, those imports which have increased relatively rapidly are those for which Canadian consumption has also increased rapidly, including such items as citrus fruits, fresh fruits and vegetables, and coffee. Those food items for which there has been a much slower rate of growth in import are generally also those for which there has been relatively small increase in Canadian demand, including dried fruit, sugar, tea and cocoa, and grain products. Similarly, within the textile group it is clear that there has been a very slow rate of increase in imports of wool and jute materials and products, primarily reflecting the small increase in Canadian consumption of these items. Canadian use of aircraft, particularly the military use, has grown rapidly; it is not surprising to find that imports of aircraft and parts have come to be a very much larger part of the total Canadian import bill. Within the group, materials for investment in structures, it is found that imports of tubes, pipes and fittings have increased quite rapidly, reflecting the growth in Canadian demand. Canadian consumption of petroleum products has increased very greatly relative to the consumption of coal, even before the discovery of Alberta oil; correspondingly, imports of petroleum products were growing very much more rapidly than imports of coal prior to 1950.

The increase in the Canadian demand for services is also reflected in the content of imports. In a number of cases the value of an import group has increased less rapidly than the final expenditure on the particular type of good, partly because of the increase in services incorporated in the final sale. For example, it is well known that a dollar of expenditure on food contains

a somewhat larger proportion of payment for processing, and wholesale and retail services than it did three decades ago. Thus, it should not be surprising to find that the imports of food products, valued f.o.b. point of origin, have increased somewhat less rapidly than the personal expenditure on food at retail. Similarly expenditures on clothing and textile products and other personal furnishings, contain more manufacturing and distributing services now than three decades ago, a factor which would tend toward a less rapid increase in imports of clothing, textiles, personal furnishings and such materials than in final expenditure.

(c) *"Dramatic" Changes in the Supply of Import-Competing Goods in Canada*

While changes in the structure of Canadian demand for goods and services appear to be the most important influences determining the changes in the content of imports, they are not the only factors. Quite apart from the gradual changes in the competitive position of Canadian industry which are by-product of or have accompanied the gradual process of economic growth, there have been a few fairly dramatic changes in the competitive position of Canadian sources of supply. Crude petroleum, synthetic rubber and synthetic textile fibres come quickly to mind. The discovery of large quantities of oil in Alberta and the technological developments in the other items have brought economical Canadian production of these items within range. (See Table 22.) Canada has never had the climate for growing cotton, nor has it been particularly successful during this century in growing wool. The gap in comparative advantage between Canada and other areas was very much larger in the traditional textile fibres than it has been in synthetic fibres. (See Table 23.) Similarly, it can be argued that Canada could have produced more and consumed less petroleum-type products before the recent discoveries of oil in western Canada; nevertheless, given the strong increases in demand for petroleum products, the discovery of large quantities of crude in Alberta represents a major improvement in the competitive position of the Canadian economy. There have been a few other fairly dramatic changes in competitive position, including the vast improvement in tobacco growing in Canada and the cheapening of Canadian production of chemical products, the latter being to some extent a by-product of the development of the non-ferrous metals and the petroleum industry.

These dramatic changes in supply go a considerable way toward explaining certain of the changes in the content of Canadian imports. Whereas imports of petroleum were increasing rapidly as a percentage of total merchandise imports until 1950, they have since become a smaller part of the total import bill. The substitution of synthetic fibres for natural fibres has resulted in a much slower growth in imports of textile raw materials. The substitution of synthetic for natural rubber has resulted in a relative decline in the imports of natural rubber since the end of World War II.

(d) *Gradual Changes in the Competitive Position of Canadian Industry*

Aside from changes in the structure of Canadian commercial policy and from dramatic changes in the availability of resources and of kinds of technical knowledge in Canada, some small gradual improvement in the competitive position of Canadian industry *vis-a-vis* foreign sources of supply appears to have taken place,<sup>3</sup> as a by-product of Canadian economic growth. Of course, Canadian economic growth does not have equally favourable implications for all industries; for some, the more rapid the Canadian growth, the more rapid the deterioration in their competitive position.

One piece of evidence supporting the view of gradual improvement in the competitive position of Canadian manufacturing *vis-a-vis* foreigners, consists of the data on import shares of the Canadian market for various manufactured goods, developed in Chapter 2. These data showed that, for a fairly broad sample of manufacturing activities, the average import share of the Canadian market was slightly lower in 1952 than it was in the late 1920's. Since 1952, there has been some increase in import shares, but, when allowance is made for the unusually high levels of Canadian economic activity in 1955 and 1956, it still appears that imports play a slightly smaller role on the average now than they did in the late 1920's. The data showed that the direction of change was found in most of the individual series included in the sample; thus, the over-all result is not a statistical illusion due to changes in the relative importance of Canadian consumption of various kinds of goods. The reductions in import shares of the Canadian market cannot be explained by increased protection of Canadian manufacturing activities, because, for most sectors of Canadian manufacturing, the protection appears to be slightly smaller now than it was in the late 1920's.

The data on market shares for some 30 products or product groups were set out in Table 14. Between the late 1920's and the present time, the import share of the Canadian market actually increased for certain items, including construction machinery, logging machinery, mining and oil well equipment, large electrical appliances, medicinal and pharmaceutical preparations, bicycles, rubber manufactures, office machinery and coal. The import share remained about the same for cotton textiles and for the general run of metal working machinery. The import share had declined for a rather long list of items including tools and hand implements, elevating and conveying equipment, compressors, heavy electrical apparatus, farm machinery, professional and scientific equipment, small electrical appliances, radio and electrical apparatus, petroleum manufactures, synthetic fibres, pulp and paper machinery, miscellaneous photographic apparatus, basic chemicals, applied chemicals, tobacco, alcoholic beverages, primary iron and steel and woollen textiles.

Regarding the observed differences in trends of import shares, two propositions carry us some way. First, with relatively few exceptions, the import

<sup>3</sup>There have been substantial short-run fluctuations in the competitive position of Canadian manufacturing during the last 30 years, but these are not our concern here. However, these short-run variations make it difficult to judge the long-run trends.

shares have fallen more rapidly for products in which the growth of the Canadian market has been particularly rapid, than for items in which the increase of the Canadian market was less rapid; *e.g.* small electrical appliances, radio and electronic equipment, petroleum manufactures, basic chemicals, tobacco, alcoholic beverages and applied chemicals. Carrying the generalization a little further, for quite a number of groups for which the import share has increased or remains the same, the growth in the Canadian market has been relatively slow, for example, cotton textiles, printing and publishing machinery, bicycles and coal. Second, the proportionate change in the import share seems to be inversely correlated with the traditional size of the import share. For many lines of machinery, the import share of the Canadian market has always been very large: for example, metal working machinery, oil well equipment, printing and publishing machinery, office machinery and construction machinery. In such cases, the proportionate decrease in the import share of the Canadian market during the last three decades has been quite small. In other cases, where the import share has been relatively small for many years, the proportionate decrease in the share between the late 1920's and the present time has been somewhat larger.

Another line of attack on the gradual changes in the competitive position of Canadian manufacturing relative to foreign sources of supply consists of speculating about and gathering fragments of evidence on changes in the various factors which influence the competitive position, factors like the growth in the Canadian market. In this connection the various studies of secondary manufacturing prepared for the Commission are most helpful, particularly the general paper on secondary manufacturing in Canada.<sup>4</sup> In the latter it is argued that the relatively small scale of the Canadian market is the chief deficiency facing a number of Canadian industries in competition with the United States, while the relative expensiveness of labour is the main source of competitive weakness in comparison with imports from the United Kingdom and Western Europe. It was suggested that those secondary industries which had grown rapidly and improved their position *vis-a-vis* foreign sources of supply were commonly characterized by rapidly expanding Canadian markets for their products, and by high productivity, high capital intensity, up-to-date equipment and methods, good management and high wages. The secondary industries which had done less well were commonly those for which the Canadian market was expanding less rapidly and for which production was labour intensive, and wage rates and productivity were comparatively low.

We do know that the Canadian market for many lines of product has expanded rapidly, though perhaps not so rapidly as to increase the size of the Canadian market relative to that in the United States. Nevertheless, as the minimum efficient scale of production has not increased as rapidly as the Canadian market for many types of product, Canadian costs of production

<sup>4</sup>D. H. Fullerton and H. A. Hampson, *Canadian Secondary Manufacturing Industry*, Ottawa, 1957.

have tended to decrease relative to foreign costs. This factor appears to be relevant to production of, for example, the smaller types of electrical apparatus, radio and electronic equipment, primary iron and steel products, petroleum refining, mining equipment, and pulp and paper machinery. Admittedly, for some types of production, the minimum efficient scale of operation has grown at least as rapidly as the Canadian market, so that very little improvement in the competitive position of Canadian manufacturing has accompanied the economic growth of the last 30 years. This would appear to be the situation for the production of the larger household appliances. For still other items, the minimum efficient scale of production is so large that the growth of the Canadian market has not brought Canadian costs close to those in foreign countries. We also know that labour has become increasingly expensive relative to capital in the North American economy, a factor which, other things being equal, would tend to progressively result in a deterioration in the competitive position of Canadian manufacturing of labour intensive products.

(e) *Effect of Changes in Canadian Commercial Policy on the Content and Geographical Sources of Canadian Imports*

Differences have been observed among the trends of the import share of the Canadian market for various goods. Have changes in the structure of Canadian commercial policy been important causes of these differences? In other words, have there been marked long-run changes in the relative protection accorded various kinds of Canadian production, changes which explain the differences in trends in import shares? Our focus is on long-run changes, particularly the major differences between the late 1920's and the present time.<sup>5</sup> Our interest is entirely of a positive nature; we are not concerned with the correctness of the policy. However, it is important for us to be able to sort out those import trends which are due to changes in commercial policy and those due to other factors, for, in our projections, commercial policy is held fixed but other things are not.

As it is extremely difficult to measure and appraise the effects of changes in the structure of commercial policy, our comments must be exploratory or illustrative. This section is based largely on the study of Canadian commercial policy carried out for the Commission.<sup>6</sup> That study discusses at some length the difficulty of judging the effects of changes in the structure of commercial policy. Canada's commercial policy is extremely complicated. Changes in the tariff structure affect not only the revenue of firms in an industry, but also the costs of various materials and components. Unless one has detailed information on the types of materials used in various products, together with the effects of tariff changes on the prices of these materials, it is not possible to tell whether changes in the tariff structure increase or decrease the effective protection of an industry or by how much. The main body of data used in

<sup>5</sup>During the past 30 years there have been a number of short-run changes in the structure of Canada's commercial policy, but these are not the concern here.

<sup>6</sup>J. H. Young, *Canadian Commercial Policy*, Ottawa, 1957.

crude studies of the effects of tariff changes consists of tariff rates, average ad valorem rates of duty on total imports or on dutiable imports, and import shares of the market. There is a general presumption that lower duties will be associated with higher import shares, other things being fixed; but in the historical data other things are not fixed. Thus, at one extreme, we may find that the cost and demand factors tending to increase imports are very powerful, so that import shares may increase despite higher import duties. At the other extreme, the cost and demand factors tending to decrease imports may be so powerful that import shares may fall enormously despite large decreases in import duties.

Selected data on changes in average ad valorem rates of duty on dutiable imports are set out in Table 24, a sample of tariff rates and classifications are set out in Table 25 and selected data on duties and import shares of the Canadian market are set out in Table 26. Judging by the average ad valorem rates of duty on various classes of imports, it appears that there have been quite different changes in duty levied on various sectors of Canadian imports, comparing the present situation with that in the late 1920's. The evidence suggests that a substantial reduction has taken place in the duties on imports of primary textile products, rubber manufactures, vehicles of iron and steel and electrical apparatus. Smaller rates of decrease in duty are found for such products as sugar, leather manufactures, inorganic chemicals, tobacco, rolling mill products and clocks and watches. In a few cases, the protection of the Canadian industry appears to be somewhat larger now than it was in the late 1920's; for example, milk products (for which the level of duties on dutiable imports is, even now, very low), synthetic textiles, chemical cellulose products and chemical alcohols. Substantial reductions have taken place in the duties levied on imports of coal, but in judging the impact of this change, an allowance has to be made for the other forms of aid which are given to domestic coal producers. Another change which appears to be quite significant, compared with 1927-28, has been the development of Canadian content legislation as regards Canadian automobile production.

## ***VI. Long-Run Adjustment of Canada's International Economic Position and the Balance of Payments***

While Canada has had to make a number of major structural adjustments of her position in the world economy during this century, her balance of payments history is not one of serious long-run balance of payments problems which remained unsolved for some time. We mean this in the sense that imports were kept within bounds of Canada's means of payments without such serious long-run anomalies as protracted non-cyclical unemployment, or persistent use of special import restrictions or continued deterioration in her terms of trade. This has been partly fortuitous, but it is also partly due to the powerful ways in which the Canadian economy and her balance of payments has been adapted to changing world opportunities. It is on this mechanism of adjustment, and particularly on the role of imports in the mechanism that our attention is centred here.

It will generally be conceded that Canada has not had long-run balance of payments disequilibrium of a kind or degree such as we think of in discussions of the dollar problem of the United Kingdom or such as the Japanese faced when synthetic fibres were developed. It must be conceded that this is partly due to good luck. The potentially most serious long-run balance of payments problem which Canada faced during this century occurred at about the time of the outbreak of World War I. Canadian economic development had been extraordinarily rapid in the decade prior to that war, with immigration and capital inflows from abroad on a scale relatively larger than anything since encountered. Imports of goods and services were extremely large relative to exports of goods and services, as one should expect under these circumstances. Now, there are many signs that this boom was coming to an end in 1913 and 1914, that many of the projects were turning out less well than was expected, that Canada was on the threshold of a much slower rate of capital inflow with the attendant problems of cutting back on imports and increasing exports. The potential size of the adjustment in foreign trade and in the pace of investment and economic growth was large enough that a serious balance of payments problem could have resulted. The special financial arrangements during the early war years, together with the exceptionally strong increase in the demand for Canadian exports during the war (which, in turn was based to some extent on United States loans to the United Kingdom and France in 1917 and 1918), was a fortuitous development which eased greatly the problem of balance of payments adjustment.<sup>7</sup>

In other respects Canada's experience has also been fortuitous. Aside from business cycles, there have not been sharp over-all declines in the demand for Canadian exports, nor has there been a serious flight of capital, nor has there been payment of a large international indemnity. (The Canadian export position deteriorated sharply in the early 1930's, but we are putting this down as mainly a cyclical change, which will be discussed later.) It is true that the world demand for Canadian agricultural products has not increased during the last three decades in anything like the way in which it did in the previous three, but at the same time a very favourable demand has developed for other Canadian export products. Some writers have suggested that, among primary producing countries, one of the important factors which distinguishes those which periodically face serious structural adjustments from those which do not face such problems is what we might call the number of eggs in the country's basket. When a country is simultaneously pursuing several kinds of activity for the export market, that country is much less likely to face a structural balance of payments adjustment problem than if it is a one-crop country. Canada has not been a one-crop country since the end of World War I. While admittedly, the favourable export opportunities are most important factors explaining the absence of a structural balance of pay-

<sup>7</sup>J. Viner, *Canada's Balance of International Indebtedness, 1900-1913*, Cambridge, Mass., Harvard University Press; W. A. Mackintosh, *The Economic Background to Dominion-Provincial Relations*, Ottawa, 1939; F. A. Knox, *Dominion Monetary Policy*, Ottawa, 1939.

ments problem, it nevertheless still leaves open the question of the means by which the imports are kept in step with the export opportunities. Favourable export opportunities are no guarantee that a country may not spend itself into balance of payments difficulties.

Another major reason why Canada has not faced a serious long-run or structural balance of payments problem relates to the role of capital inflows into the Canadian economy. In periods of rapid Canadian economic development, particularly as that development has involved rapid rates of capital accumulation, large volumes of capital have come into Canada. Some of these flows are directly connected with specific investment projects; some of the flows are just a general Canadian drawing on world supplies of capital during periods of rapid economic growth. The capital inflows have meant that, when Canada has had a rapidly growing bill of imports, foreign exchange has been available to finance the current account deficit. However, the question still remains as to the mechanism by which the real transfer of capital takes place and the question of the way in which the real transfer is kept more or less in step with the available means of payments.

Let us turn to the mechanism of adjustment of Canada's international economic position. Our central concern is with the long-run aspect of the mechanism; that is, with the way in which long-run changes in the demand for exports or in the Canadian economic growth or in autonomous capital inflows have become appropriately adjusted. Of course, the long-run mechanism includes all of the familiar short-run processes as the first stages of adjustment. If, for example, Canadian export opportunities deteriorate, in the short run Canada may tend to run a balance of payments deficit which will be corrected more or less quickly by changes in exchange rates or in the domestic price level relative to the prices of imports and exports of goods, by fluctuations in the income and employment and so on.

It is our belief that there are very powerful forces at work to keep Canada's imports more or less in step with its means of international payment. First, variations in the rate of Canadian economic growth have usually been associated with variations in the development of export opportunities or other major determinants of investment activity in Canada. The proportion of investment goods used in Canada, particularly for investment in machinery and equipment, derived from imported sources, is very large indeed. Thus if Canadian exports deteriorate and Canadian economic growth becomes less rapid, and if the associated investment opportunities decrease, one would expect a fairly large and rapid decrease in investment in machinery and equipment and a corresponding decrease in imports of machinery and equipment. If the investment opportunities deteriorate for reasons other than the decline of exports, it is probable that the inflow of capital into Canada would decrease and a corresponding change in the imports of equipment would occur through a mechanism similar to that just discussed.

Quite a number of Canada's imports are items for which the Canadian demand is highly income elastic, items such as various consumer durables and

other manufactured consumer goods. If the growth in Canadian income is less rapid, then the Canadian demand for these goods would decrease sharply, and imports of finished goods and materials for these uses would correspondingly decrease. The same argument would apply to foreign travel.

Looking at Canadian imports in detail, and comparing these with the Canadian productive activity, one cannot help but be impressed by the number and importance of the places where there are more or less close substitution possibilities between imports and domestic sources of supply. Such a close substitution possibility exists for a very broad range of machinery and equipment, for automobiles and trucks and automobile parts, for primary steel products, for many basic chemicals, for textile products, and to a lesser extent for raw sugar, prepared fruits and vegetables and so on. The closeness of substitution possibilities over such a broad range of goods suggests that Canada has a really large over-all capacity to make adjustments in the relative role of imports and domestic sources of supply in meeting the Canadian market. Thus, if, for example, Canada's export opportunities grow extremely well, then one would expect that imports would be substituted relatively for domestic sources of supply over a broad front. On the other hand, if Canadian exports went less well in the world market, one would expect that the sharing of the Canadian market between imports and internal sources of supply would shift in favour of the domestic sources. Because the range over which these substitution possibilities exist is so broad, it would take a comparatively small change in each area of possible substitution to produce a fairly large change in the over-all position of imports compared with domestic production.

There are a number of instances of Canadian experience where it appears that this type of substitution has taken place. In *Canada's Balance of International Indebtedness, 1900-1913*, Viner showed that in the period of very great increase in the capital inflow into Canada prior to World War I, a considerable substitution of foreign for domestic sources of supply took place over a very broad range of items. In recent years, particularly since 1950, when once again Canada has experienced a fairly rapid increase in the rate of capital inflow, there is again evidence of a substitution of outside for domestic sources of supply over a broad range of items. This recent experience appears to be more than can be explained by the usual cyclical factors, and more than can be explained merely by a return to a normal trading position from the abnormal situation of the early postwar years.

## ***VII. Short-Run Changes in Imports; Effects of Various Short-Run Policies on Imports***

### ***(a) Introduction***

In Chapter 2 of this study and in setting out the themes or theses of this chapter it was argued that much of the Canadian import experience between 1930 and 1950 provides an unsatisfactory basis for setting out long-run import prospects, at least if the data are used in their raw form. This argument is based on the idea that the experience between these years reflects a mixture

of long-run and short-run forces and a number of changes in policy which have turned out to be temporary. Some examination of these short-run fluctuations in Canadian imports should be made, not only to support the proposition or thesis, but also to provide some sight on Canada's short-run fluctuations in imports and the impact of various changes in policy.

The observations which require some exploration are the following:

- 1) the very sharp decrease in Canadian merchandise imports between 1929 and 1933 and the rather slow recovery of those imports prior to World War I;
- 2) the development of a balance of payments position such that Canada was a net exporter of capital throughout much of the period, 1930 to 1950;
- 3) the substantial increase in the proportion of Canadian imports derived from the United Kingdom during the 1930's, a movement which appears to be sharply divergent from the long-run trend;
- 4) the unusually low level of imports in the early postwar years, continuing into 1950;
- 5) the experience of short-run balance of payments adjustments, both cyclical and non-cyclical in origin, and particularly the role of imports in such adjustments.

(b) *The Abnormally Low Level of Merchandise Imports During the 1930's*

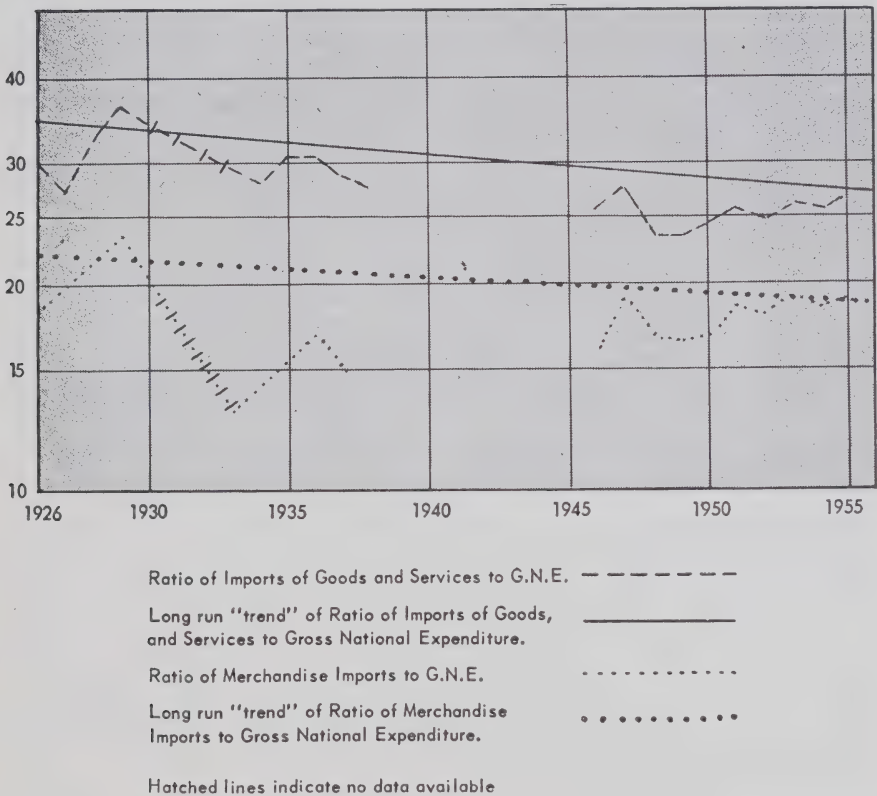
Canada's merchandise imports reached abnormally low levels during the 1930's in the sense that the ratio of imports to the output of goods and services (or to the gross supply of goods and services coming available in Canada) was well below that which could be treated as normal. The ratio of imports to G.N.E. in selected years is set out in Chart VII. The ratio was lower in 1933 than it has been in any subsequent peacetime year; even at its highest, in 1937, the ratio was only a trifle above that which is found in 1949, a year in which substantial special restrictions of imports were in force. To a lesser degree the imports of goods and services were also abnormally low, the smaller degree being accounted for by the relatively small fluctuations in the interest and dividends item. The same point, the abnormally low position of imports, is also illustrated by the data on the sharing of the Canadian market between imports and domestic sources of supply, set out in Table 14. These data show that there was a marked decrease in the import share of the Canadian market for many manufactured goods between 1929 and 1933, that some increase in the import share took place in the years between 1933 and the beginning of the war, but that at their highest points in the 1930's the import shares were still well below those which had been experienced in the 1920's. There are a few exceptions, but these are explained by other factors.

The main influence in this rather sharp decrease of Canadian merchandise imports was the depression between 1929 and 1933 and the incomplete recovery which took place thereafter. During the 1930's investment in new machinery and equipment was a much smaller proportion of G.N.E. than is found under

full employment conditions; the result is that imports of machinery and equipment, a rather larger part of the Canadian merchandise imports, were unduly depressed. (See Table 27.) In addition, expenditures on consumer durables (of the types which have comparatively high import content) made up a smaller proportion of the total national expenditure than would otherwise have been found, with a corresponding sharp decrease in the imports of such durable goods and parts or materials for their manufacture in Canada.

Chapter 3, Chart VII

**CANADA: RATIO OF IMPORTS OF MERCHANDISE AND IMPORTS OF GOODS, AND SERVICES TO GROSS NATIONAL EXPENDITURE**



A second explanatory factor is the increase in the protection of the Canadian manufacturing industry between 1929 and 1935, and the relaxation of this increased protection in subsequent prewar years. The increase in protection took several forms, including increases in rates of duties, the increased protective effect of specific rates in periods of falling prices, and a very substantial increase in the administrative elements of the protective apparatus. The U.S.-

Canadian trade agreements of 1935 and 1937 restored the general level of protection to something like it was before 1930, though some elements of the increased administrative protection continued, and for certain segments of the Canadian economy the protection was greater after 1938 than it had been before 1929.<sup>8</sup> While the average ad valorem rates of duty on dutiable imports and on total imports are a somewhat unsatisfactory measure of the degree of protection, they provide some illustration of the change that took place; these rates are set out in Table 28.

A third factor which tends to make the imports abnormally low during the 1930's was the capital outflow.<sup>9</sup> It is difficult to know whether this capital outflow was the result or the cause of the low level of imports. We tend to treat the bulk of it as an effect of the low level of imports, the argument being that, if Canada had carried out a higher level of economic activity there would have been both a higher level of imports and a smaller level of capital outflow. Inasmuch as some elements of the capital outflow were associated with deliberate efforts by the governments to repatriate their embarrassing two-pay and three-pay foreign bonds, one is tempted to treat at least some part of the outflow as an autonomous element in the balance of payments situation.

(c) *The Abnormally High Proportion of Imports Derived from the United Kingdom During the 1930's*

When the current proportion of Canada's merchandise imports derived from the United Kingdom is compared with almost any year in the 1930's, one cannot help but be impressed by the very great decrease in the British share; indeed, in a number of official statements and in discussions in the press, such comparisons have been made. While there is no denying that a very great decrease in the British share of Canadian imports has taken place between the 1930's and the present time, it is worth pointing out that the decline of the British share has been going on for a long time and that the British share in the 1930's was unusually high. Selected data on the proportion of Canada's imports derived from the United Kingdom have been set out in Table 29; these show that the proportion derived from the United Kingdom decreased from more than 30% prior to the turn of the century to about 16% between 1926 and 1929; however, the British share increased sharply in the 1930's, moving against the long-run trend. Since that time, or more correctly since 1933, there has been a decline of very considerable degree in the British share, even after allowances are made for the extraordinary conditions of the early postwar years.

The long-run decline has been discussed earlier; what we are concerned with here is the explanation of the abnormally large proportion of the Canadian imports derived from the United Kingdom during the early part of the 1930's and the subsequent decline in the latter part of the 1930's. One of the

<sup>8</sup>G. A. Elliott, *Tariff Procedures and Trade Barriers*, Toronto, University of Toronto Press, 1955.

<sup>9</sup>See D.B.S., *The Canadian Balance of International Payments, 1926-48*, Ottawa, 1949.

most important reasons is the very substantial increase in the margin of tariff preference accorded British goods in the early 1930's, an additional margin which was more or less wiped out by granting the treaty rates of duty to the United States in the trade agreements of 1935 and 1937. A contributing factor to the increase in the British share may have been the price consciousness of purchasers and the increased activity of sellers in hard times. The continuing margin of British preference gave some price advantage to the British sources of supply compared with those in the United States throughout the 1930's. A third factor is the pattern of Canadian exchange rate movements. It will be recalled that the Canadian dollar depreciated relative to the United States dollar in the early 1930's but by a smaller degree than the pound depreciated against the United States dollar; this pattern was gradually wiped out in the later 1930's.<sup>10</sup> While the relative depreciation of the pound existed, it provided some additional price advantage to purchasing in the United Kingdom.<sup>11</sup> Finally, the British share in Canadian imports of what we have called soft goods, that is, prepared foods, textiles, leather products and such like, is well above the average share of the United Kingdom in Canada's merchandise imports. This is illustrated in Table 30. Further, in periods of decrease in levels of economic activity, a less than proportionate decrease takes place in the demand for these soft goods. The net result is that the import demand for these items decreases less than proportionately to the over-all demand for imports; and this is illustrated by Table 31. It follows that the demand for imports from the United Kingdom decreased by less than the average Canadian demand for imports. Thus, quite apart from changes in commercial policy or changes in exchange rates, one would expect that the British share in Canadian imports would rise in periods of falling economic activity and fall in periods of rising economic activity, at least when substantial changes in the level of economic activity take place. All of these points had some bearing on the abnormally high level of Canadian imports from the United Kingdom throughout the 1930's; the experience suggests that the rate of long-run decline in the British share in the Canadian market has been somewhat less rapid than one would think by making a comparison of any year in the 1930's with the present time.

(d) *The Unusually Low Level of Canadian Imports in the Early Postwar Years*

In many of the discussions of import competition in the last few years, comparisons have been made between the experience during the early postwar years, particularly, between 1948 and 1950, and recent experience, particularly between 1952 and 1955. It has often been argued that Canada has been faced with exceptionally large import competition in the recent years. It is our contention that this is not a fair comparison, that what is being compared is a period during which imports were abnormally low with one in which the imports were more or less normal for a rapidly growing full-employment peacetime Canadian economy.

<sup>10</sup>F. A. Knox: *Dominion Monetary Policy*, Ottawa, 1939.

<sup>11</sup>This was partly offset by arbitrary valuations of the pound for Canadian tariff calculations.

It is sometimes thought that the extremely high level of imports in 1947 was the main factor in the balance of payments difficulty that developed during that year. In retrospect, it appears that the imports in 1947 were closer to a normal peacetime full-employment level than has been generally thought; the balance of payments difficulty is largely to be explained by the exceptional capital movements and the fact that Canada had not adjusted its export structure to the long-run opportunities of the postwar world. In any case, the imports in 1948 and in 1949, in real terms, were at much lower levels than in 1947.<sup>12</sup> This is partly due to the emergency restrictions of Canadian imports, which were quite intense in 1948 and 1949 and which continued into 1950. It was partly due also to the extremely short supply of imports from Europe. Imports from that area would have been relatively scarce in any case but the normal kind of payments adjustment which accompanied the large-scale foreign aid to Europe made European supplies even scarcer, particularly, for capital goods. In addition, in the early postwar years, prior to the devaluations in 1949, a set of exchange rates between North American and European currencies had grown up, which was quite out of keeping with the relative degrees of inflation which had taken place on each side of the Atlantic Ocean. The depreciation of the Canadian dollar in 1949 acted as a further restraint on imports at a time when the emergency import restrictions were being gradually relaxed.

The combination of European recovery, the relative decrease in aid to Europe, the devaluations of the European currencies, the freeing of the Canadian exchange rate and the removal of Canadian import restrictions, a series of changes which took place between late 1949 and late 1950, all worked to remove a series of abnormal restrictions on the demand for or the supply of imports to Canadians.<sup>13</sup> Much of the increase in Canadian imports since that time has been a re-establishment of a normal competitive import relationship. In addition, of course, there has been the adjustment of Canada's balance of payments to the substantial inflow of capital; this has worked in the same way as the other factors, tending to increase imports. However, even this may be looked upon as a normal kind of situation, in that net inflows of capital have characterized Canadian full-employment peacetime periods of rapid economic growth.

The exceptionally low level of imports in 1948-49 and in 1950 also shows up in the abnormally low level of the ratio of imports to Canadian consumption of various manufactured goods. Across a rather broad range of Canadian manufacturing, the import share of the Canadian market was substantially lower in 1948 and 1949 than it was in either 1947 or 1937; we have argued elsewhere that even in 1937 the import share of the Canadian market was somewhat below normal for many manufactured goods. Corresponding with

<sup>12</sup>H. C. Eastman, "Recent Canadian Economic Policy: Some Alternatives", CJEPS, May, 1952; D.B.S., *Review of Foreign Trade*, various issues.

<sup>13</sup>F. A. Knox, C. L. Barber and D. W. Slater: *The Canadian Electrical Manufacturing Industry: An Economic Analysis*, Toronto, 1955.

these abnormally low rates of import of many manufactured goods we find exceptionally rapid increases in Canadian production of certain manufactures. If our judgment regarding the exceptionally low level of imports is correct, then it follows that the increase in Canadian manufacturing activity across a fairly broad range of areas which compete with imports was exceptionally high in the early postwar years. In other words, the early postwar years do not provide a satisfactory guide to the long-run prospects for growth of these industries.

(c) *Short-Run Balance of Payments Adjustments: The Role of Imports*

It has been argued earlier that Canada has not had any serious long-run balance of payments problems, partly because of the many and powerful ways in which imports are kept in step with exports and capital inflows into Canada. Long-run balance of payments stability is, by itself, no guarantee of avoiding short-run balance of payments problems. This section is concerned with the short-run aspects of such adjustments; cyclical fluctuations will be considered first and other short-run adjustments later.<sup>14</sup>

Despite wide fluctuations in exports and in what might be thought of as the autonomous elements of capital inflows into Canada, we have not had great short-run balance of payments problems, in the narrowest sense of that term (with one or two such exceptions as 1928-29, and 1947). By the narrowest sense we mean balance of payments problems such that the country was running out of foreign exchange reserves, or was experiencing very large changes in foreign exchange rates, or was having to engage in a series of special measures to restrict imports or to boost exports. The absence of very great short-run balance of payments problems in such a situation must be due to a rapid and powerful downward adjustment of imports, particularly, in view of the historic stability of debt service charges in Canada's current account debit position. Such rapid changes in the level of imports have taken place; indeed, the indications are that in periods of depression the ratio of imports to G.N.E. has tended to decrease somewhat more rapidly than the ratio of exports to G.N.E. In the study of Canadian-American economic relations being carried out by the Commission, this point has received considerable attention; Canada has had somewhat smaller fluctuations in economic activity, particularly in small cycles, than have been experienced in the United States. The different experience apparently cannot be explained by differences in the over-all demand for goods and services in the two countries; a major factor appears to be the wider amplitude of fluctuation of Canadian imports than of Canadian domestic economic activity.

<sup>14</sup>By now there is substantial literature on Canada and the business cycle, particularly on the experience in the 1920's and 1930's. See: V. W. Malach, *International Cycles and Canada's Balance of Payments, 1921-33*, Toronto, University of Toronto Press, 1954; E. Marcus, *Canada and the International Business Cycle, 1927-39*, New York, 1954; R. B. Bryce, "The Effects on Canada of Industrial Fluctuations in the United States", *CJEPS*, August, 1939; A. E. Safarian "Foreign Trade and the Level of Economic Activity in Canada", *CJEPS*, 1952; E. J. Chambers, "The 1937-8 Recession in Canada", *CJEPS*, August, 1955.

Having argued that Canada has not experienced great short-run balance of payments problems of a cyclical nature, we must nevertheless recognize that this is attributable to the fact that Canada has had quite large fluctuations in economic activity positively correlated with fluctuations in the level of exports or in the more or less autonomous inflows of capital into Canada. Even if these fluctuations have been somewhat smaller than in the United States and even though they have been accompanied by more than proportionate fluctuations in imports, it nevertheless remains true that balance of payments difficulties have been avoided largely as a by-product of substantial fluctuations in economic activity. This is why we say that Canada has had no short-run cyclical balance of payments problems in the narrowest sense of the term; they have been avoided largely by means of unemployment and levels of income less than those that could potentially be achieved.

The interesting question for us to explore is the way in which the imports have become adjusted to these cyclical fluctuations, in particular, the reasons why the fluctuations in imports appear to be somewhat greater in amplitude than the fluctuations in economic activity. Three reasons have been advanced to explain this phenomenon:

- 1) it has been suggested that in periods of declining economic activity a more than proportionate decline takes place in a number of activities which have extremely high import content, such activities as expenditure on new machinery and equipment and on consumer durables and miscellaneous manufactured consumer items;
- 2) it has been suggested that the more than proportionate fluctuations in inventories accompany fluctuations of the level of economic activity and that a very large part of this fluctuation in inventories spills over into a fluctuation of imports;
- 3) it has also been argued that the division of the Canadian market for many kinds of goods between imported and domestic sources of supply tends to shift in favour of the domestic sources of supply during periods of falling activity and tends to produce increasing ratios of imports in periods of rising economic activity, particularly, as full employment is reached. This latter point is suggested as a by-product of the structure of Canadian industry, which in turn is substantially attributable to the structure of the Canadian tariff.

Some investigations of these three lines of argument is undertaken in the study of economic relations between Canada and the United States.<sup>15</sup> There is no question but that the investment in machinery and equipment has fluctuated more widely than the general level of demand for goods and services in Canada, even in short cycles, and that the import content of such investment expenditure is extremely high. Thus, the changes in the mixture of Canadian demand as economic activity rises and falls are parts of the explana-

tion of the more than proportionate fluctuation in imports. The same point holds for the more durable items in consumer expenditure.

Regarding short-run balance of payments problems of non-cyclical origin it should be pointed out that the Canadian economy appears to have a very considerable capacity for adjustment. In the first place, the experience under the freely fluctuating exchange rate arrangements and under full employment conditions suggests that the capital flows, or more correctly, the short-run elements of the capital flows, appear to behave in a compensating manner. Secondly, when an economy is close to full employment (but not in an inflationary situation), that economy seems to have a rather high capacity for making minor adjustments in the allocation of resources. If short-run balance of payments difficulties arise and these are not fully offset by the changes in the short-term capital accounts, one would expect that the Canadian exchange rate would move adversely and that a comparatively small change in the exchange rate would provide an incentive over a broad enough range of export and import-competing industries to produce a fairly sizable balance of payments correction. In any case, Canada has fairly substantial exchange reserves; it is precisely these circumstances in which it would appear sensible to use some of the exchange reserves or the lines of credit which are available through international institutions and other central banks.

Table 16

# SELECTED DATA ON IMPORT SHARES OF THE CANADIAN MARKET IN RECENT YEARS BASED ON CURRENT \$ VALUE DATA

*(imports as percentage of the Canadian market)*

Groups	1950	1952	1953
Machinery and equipment, excluding electrical apparatus			
1. Industrial machinery . . . . .	54.6	58.2	n.a.
1.1 Construction machinery . . . . .	67.1	74.3	"
1.2 Logging, sawmill and wood working machinery . . . . .	( )	78.4	"
1.3 Printing and publishing machinery . . . . .	98.8	97.9	"
1.4 Metal-working machinery . . . . .	86.6	76.4	"
1.5 Elevating and conveying machinery . . . . .	35.3	37.3	"
1.6 Compressors . . . . .	46.9	38.2	"
1.7 Pulp and paper machinery . . . . .	16.0	18.8	"
1.8 Boilers, heat exchangers and pumps . . . . .	5.3	13.8	"
2. Mining and oil well equipment . . . . .	93.6	90.5	"
3. Farm machinery . . . . .	69.7	62.7	"
4. Office machinery . . . . .	29.3	50.0	"
5. Professional and scientific equipment . . . . .	69.8	73.2	"
6. Carpenters' and mechanics' tools . . . . .	30.7	38.6	"
7. Miscellaneous durable machinery . . . . .	36.2	33.7	"
8. Durable containers . . . . .	24.8	41.4	"
9. Office and store furniture and fixtures . . . . .	4.9	8.2	"
10. Locomotives and railroad cars . . . . .	14.6	5.4	"
Other groups			
11. Electrical apparatus and supplies . . . . .	15.7	21.6	24.9
11.1 Large electrical appliances . . . . .	17.2	33.0	36.1
11.2 Heavy electrical apparatus . . . . .	23.1	28.0	28.1
11.3 Radio and electronic equipment . . . . .	23.6	25.1	29.2
11.4 Small electrical appliances . . . . .	11.6	20.9	25.8
11.5 Light electrical apparatus . . . . .	6.8	9.2	12.2
12. Bicycles . . . . .	13.3	19.8	27.7
13. Motor vehicles . . . . .	4.2	12.1	7.0
14. Motor vehicle parts . . . . .	28.0	45.3	46.2
15. Cotton textiles . . . . .	19.1	24.0	26.4
16. Wool textiles . . . . .	23.9	23.4	30.8
17. Synthetic textiles . . . . .	14.9	19.5	22.5
18. Basic chemicals . . . . .	—	—	33.5
19. Petroleum products . . . . .	17.0	16.7	—
20. Allied chemicals . . . . .	—	—	12.6
20.1 Paints, pigments and varnishes . . . . .	17.0	14.2	16.2
20.2 Medicinal and pharmaceutical . . . . .	20.5	20.8	20.3
20.3 Soaps . . . . .	1.3	0.9	1.0
20.4 Toilet preparations . . . . .	21.4	28.0	31.8
21. Glass products . . . . .	39.6	34.6	38.1
22. Rubber products . . . . .	5.9	7.8	7.9
23. Printing, publishing and allied trades . . . . .	9.4	10.4	11.2

SOURCE: See Appendix A.

Table 17

## CANADA: CHANGES IN THE RATIO OF EXTERNAL TRADE TO PRODUCTION

	Merchandise imports (per National Accounts) as % of G.N.E. (both in 1949 \$)	Imports of goods and services as % of G.N.E. (both in 1949 \$)	Merchandise imports (per National Accounts) as % of G.N.E. (current \$)	Imports of goods and services as % of G.N.E. (current \$)
1926	18.3	30.0	18.4	28.7
1927	19.9	27.4	18.7	28.8
1928	21.8	32.9	19.8	29.6
1929	23.7	36.5	20.6	31.5
1947	19.2	27.7	18.5	26.3
1948	16.8	23.7	16.7	23.3
1949	16.5	23.5	16.4	23.3
1950	16.8	24.3	17.2	24.8
1951	18.5	25.7	19.1	26.1
1952	18.1	24.9	16.6	23.2
1953	19.2	26.0	17.2	23.9
1954	18.6	25.6	16.1	22.9
1955	19.3	26.6	17.0	24.0
Average 1926-29	21.1	31.8	19.4	29.7
Average 1935-39	15.3	29.1	12.9	24.4
Average 1951-55	18.8	25.8	17.1	24.0

SOURCE: Computed from D.B.S., *National Accounts, Income and Expenditures*, various issues.

Table 18

## CANADA: GROWTH IN SERVICES, CONSTRUCTION, AND EXPENDITURE ON MACHINERY AND EQUIPMENT AND ON SELECTED DURABLE CONSUMER GOODS

	Average 1926-29	Average 1935-39	Average 1951-55
1. Gross Domestic Product, selected services as % of total Gross Domestic Product.....	35.0	35.9	35.8
2. Gross Domestic Product, construction industry as % of total Gross Domestic Product.....	5.3	4.9	5.6
3. Public and private investment in machinery and equipment as % of G.N.E.....	7.1	4.9	8.5
4. Personal expenditure on selected group of durable goods.....	5.3	4.2	5.7

NOTE: The concept, Gross Domestic Product, has been defined in the study *Output, Labour and Capital in the Canadian Economy* prepared for the Commission. (In the aggregate Gross Domestic Product differs in minor degree from G.N.P.). Lines 1 and 2 of this table have been computed from data made available in this study. The selected services include wholesale and retail trade, finance insurance and real estate, business, personal and recreational services, government and community services, and residential rents.

The data on public and private investment in machinery and equipment have been taken from the publications by that name, by the Department of Trade and Commerce. Adjustment of the data between 1926 and 1932 has been carried out by the staff of the Commission.

The selected group of consumer durable goods differs a little from the concept used in *National Accounts*; the group used in this Table includes jewellery and watches, household appliances and radios, purchases of automobiles for personal use and personal expenditure on auto parts and accessories.

Table 19

## CANADA: NET FOREIGN INVESTMENT AND G.N.P.

	G.N.P.	Net foreign invest- ment in Canada	Imports of goods and services	Exports of goods and services	NFI as % of G.N.E.	Imports as % of G.N.E.	Exports as % of G.N.E.
	1	2	3	4	5	6	7
1901-05 average	1,130	60	309	248	5.3	27.6	21.9
1906-10 average	1,696	157	499	342	9.3	29.4	20.2
1911-15 average	2,436	303	834	531	12.4	34.2	21.8
1921-25 average	4,518	—14	1,265	1,279	—0.3	27.9	28.3
1926	5,294	—128	1,522	1,650	—2.4	28.7	31.2
1927	5,647	11	1,629	1,618	0.2	28.8	28.7
1928	6,105	35	1,808	1,773	0.6	29.6	29.0
1929	6,166	313	1,945	1,632	5.1	31.5	26.5
1926-29 average	5,803	58	1,726	1,668	1.0	29.7	28.7
1930	5,546	339	1,625	1,286	6.1	29.3	23.2
1931-33 average	3,960	91	957	866	2.3	24.1	21.9
1934-39 average	4,896	—141	1,190	1,331	—2.9	24.3	27.2
1940-45 average	10,152	—322	2,551	2,873	—3.2	25.1	28.5
1946	12,026	—332	2,878	3,210	—2.8	23.9	26.7
1947	13,678	— 17	3,621	3,638	—0.1	26.3	26.4
1948	15,613	—418	3,636	4,054	—2.7	23.3	26.0
1949	16,462	—174	3,837	4,011	—1.1	23.3	24.1
1950	18,203	+330	4,513	4,183	1.8	24.8	23.0
1951	21,474	524	5,613	5,089	2.4	26.1	23.7
1952	23,255	—173	5,400	5,573	—0.7	23.2	24.0
1953	24,473	443	5,843	5,400	1.8	23.9	22.1
1954	24,317	327	5,574	5,147	1.3	22.9	21.2
1955	27,679	657	6,430	5,753	2.5	24.0	21.5
1952-55 average	24,703	314	5,812	5,468	1.3	23.5	22.1
1956	29,866	1,389	7,699	6,310	4.6	25.7	21.1

NOTE: + =Investment in Canada;

— =Net foreign investment by Canadians.

SOURCE: Cols. 1, 2, 3, 4: 1901-25. K. A. H. Buckley, *Capital Formation in Canada*; 1926-56 D.B.S., *National Accounts, Income and Expenditures*, various issues.

Table 20

## CANADA: BARTER TERMS OF TRADE — SELECTED YEARS

(index numbers)

Year	D.B.S. 1949 = 100	Rowell-Sirois report 1926 = 100	Year	D.B.S. 1949 = 100	Rowell-Sirois report 1926 = 100
1901-05 average	—	96.8	1928	100.3	98.0
1906	—	97.6	1929	101.5	97.8
1908	—	98.5	1949	100.0	—
1910	—	105.8	1950	97.5	—
1912	—	104.4	1951	96.8	—
1913	—	88.6	1952	109.6	—
1914	—	96.0	1953	107.4	—
1915	—	100.8	1954	104.4	—
1926	101.2	100.0	1955	106.3	—
1927	102.2	100.1			

NOTE: D.B.S. Index of export prices, 1948 = 100 divided by index of import prices, 1948 = 100, both shifted to 1949 = 100.

NOTE: Rowell-Sirois: W. A. Mackintosh, *Economic Background to Dominion-Provincial Relations*, Ottawa, 1939.SOURCE: Wm. C. Hood and Anthony Scott, *Output, Labour and Capital in the Canadian Economy*.

Table 21

## IMPORTS OF CONSUMER DURABLES AND MACHINERY AND EQUIPMENT

	Unit	1926-29	1928-29	1952-55	1953-55 as % of 1926-29	1953-55 as % of 1928-29
(1) G.N.E. (annual average).....	\$ mills (current)	5,803	6,136	24,703	425.6	410.5
(2) Expenditure on consumer durables (adjusted) plus private and public investment in machinery and equipment.....	\$ mills (current)	628.3		3,492.8		555.9
(3) (2) as % of G.N.E.....	%	10.8		14.2		
(4) Imports of consumer durables and machinery and equipment..	\$ mills		319		1,668	522.8
(5) Imports of consumer durables and machinery and equipment as % of total imports.....	%		25.9		38.0	

(1) The G.N.E. figure has been taken from D.B.S., *National Accounts, Income and Expenditures*, various issues.(2) The Consumer durables (adjusted) consists of the group called consumer durables in Canada's *National Accounts* less expenditure on furniture and home furnishings plus the expenditure on autos, parts and accessories.(3) The private and public investment in machinery and equipment has been taken from the Department of Trade and Commerce publication and covers the period 1946-50, and the Department of Trade and Commerce *Outlook* publications since that time. The data for 1926-32 have been corrected by the staff of the Commission.

(4) The imports of consumer durables and of machinery and equipment are taken from the functional classification of imports development in this study.

Table 22

## SELECTED DATA ON IMPORTS AND PRODUCTION OF PETROLEUM PRODUCTS

	Unit	1920	1930	1940	1945	1950	1955
Canadian production of crude petroleum . . . . .	000 bbls./day	1.	4.	23.	23.	80.	359.
Imports crude petroleum . . .	"	30.	80.	117.	156.	215.	226.
Imports of petroleum products . . . . .	"	18.	22.	19.	18.	85.	93.
Petroleum products: domestic supply = production plus imports .	"	49.	106.	159.	197.	380.	678.
Exports . . . . .	"	0.	0.	0.	0.	0.	55.
Domestic consumption of petroleum products . . . . .	"	49.	106.	159.	197.	380.	623.
Imports of crude as % of Canadian production of crude petroleum . . . . .	%	3000.0	2000.0	508.7	678.3	268.8	63.0
Exports of crude as % of Canadian crude production . . . . .	%	—	—	—	—	—	15.3
Imports of crude as % of domestic supply . . . . .	%	61.2	75.5	73.6	79.2	56.6	33.3
Imports of products as % of domestic supply . . . . .	%	36.7	20.8	11.9	9.1	22.4	13.7
Imports of crude and products as % of consumption . . . . .	%	98.0	96.2	85.5	88.3	78.9	51.2

NOTE: All the data have been converted to equivalents of barrels of crude petroleum.

SOURCE: Data taken from John Davis, *Canadian Energy Prospects*, Ottawa, 1957.

Table 23

## SELECTED DATA ON CONSUMPTION AND IMPORTS OF TEXTILES

	1926-29	1935-39	1945-49	1950	1951	1952	1953	1954
Synthetic textiles, consumption as % of total textile consumption	3.4	8.1	16.0	20.2	23.3	27.5	26.9	26.8
Synthetic textiles, imports as % of consumption . . .	—	10.	14.	8.	8.	13.	15.	15.
Wool textiles, imports as % of consumption . . . . .	—	22.	21.	24.	24.	31.	33.	37.
Cotton textiles, imports as % of consumption . . . . .	—	18.	27.	19.	21.	29.	32.	30.

NOTE: All the original data were measured in *pounds of fibre content*.SOURCE: Computed from data in *The Canadian Primary Textiles Industry*, prepared for the Commission by the National Industrial Conference Board (Canadian Office), Ottawa, 1957.

Table 24

# AVERAGE AD VALOREM RATES OF DUTY ON DUTIABLE IMPORTS, SELECTED GROUPS OF IMPORTS, 1927-28 AND 1953

Group	1927-28	1953
1. Average ad valorem rate of duty on dutiable imports. Higher in 1953 than in 1927-28.		
1. Milk and products . . . . .	4.23	7.85
2. Synthetic textiles . . . . .	22.39	28.77
3. Paints, pigments and varnishes . . . . .	14.86	15.21
4. Chemicals — cellulose products . . . . .	14.45	17.50
5. Chemicals — alcohols . . . . .	25.00	39.90
2. Average ad valorem rate of duty on dutiable imports. Lower in 1953 than in 1927-28.		
A. By more than 50% of 1927-28 rates.		
1. Wines . . . . .	50.14	12.33
2. Fresh fruit . . . . .	20.64	8.86
3. Coal and products . . . . .	24.16	11.26
4. Petroleum products . . . . .	14.69	5.99
B. By more than 25% but less than 50% of 1927-28 rates.		
1. Castings and forgings . . . . .	30.26	15.84
2. Tubes, pipes and fittings . . . . .	23.64	16.11
3. Engines and boilers . . . . .	26.99	18.85
4. Non-agricultural machinery . . . . .	22.98	13.20
5. Hardware and cutlery . . . . .	27.25	19.13
6. Tools and hand implements . . . . .	28.15	18.38
7. Brass products . . . . .	24.44	18.87
8. Glass products . . . . .	21.26	13.78
9. Amusements and sporting goods . . . . .	30.22	22.78
10. Household equipment (mainly refrigerators) . . . . .	29.41	20.93
11. Scientific and educational equipment . . . . .	23.67	16.24
C. By more than 15% but less than 25% of 1927-28 rates.		
1. Cotton and manufactures . . . . .	24.18	19.98
2. Wool and manufactures . . . . .	24.1	18.71
3. Rubber manufactures . . . . .	27.75	19.92
4. Vehicles of iron and steel . . . . .	25.67	20.14
5. Drugs . . . . .	25.31	19.47
6. Electrical apparatus and supplies . . . . .	26.45	20.80
7. Chemicals — Acids . . . . .	19.47	15.98
D. By more than 10% but less than 15% of 1927-28 rates.		
1. Sugar . . . . .	18.30	14.52
2. Leather . . . . .	24.31	22.58
3. Inorganic chemicals . . . . .	14.90	11.98
E. By less than 10% of 1927-28 rates.		
1. Tobacco . . . . .	62.35	61.04
2. Rolling mill products . . . . .	10.34	9.82
3. Clocks and watches . . . . .	21.56	21.35
4. Miscellaneous vehicles . . . . .	21.49	19.82

SOURCE: Computed from *Trade of Canada* and from a special tabulation of Canada's imports prepared by D.B.S.

Table 25

CANADA: SELECTED RATES OF CUSTOMS DUTY

Present Tariff II	Item	Year	On imports from U.S.	On imports from U.K.
427	All machinery composed wholly or in part of iron and steel, n.o.p., and complete parts thereof	1928	30%	20%
		1930	30%	15%
		1930	35%	20%
		1933	35%	10%
		1936	25%	10%
		1949	22.5%	10%
427a	Same as above, except "of a class or kind not made in Canada"	1928	10%	Free
		1930	20%	Free
		1936	20%	Free
		1939	10%	Free
		1949	7.5%	Free
523	Woven fabrics, wholly of cotton, not bleached, mercerized, not coloured, n.o.p.	1922	25%	12.5%
		1930	22.5%	12.5%
		1930	25% plus 4¢/lb.	17.5% plus 3¢/lb.
		1933	"	15%
		1936	"	"
		1939	17.5% plus 3¢/lb.	15%
		1950	15% plus 3¢/lb.	15%
523a	Woven fabrics, wholly of cotton, bleached or mercerized, not coloured, n.o.p.	1922	25%	15%
		1930	25%	15%
		1930	27.5% plus 4¢/lb.	20% plus 3¢/lb.
		1933	"	20%
		1939	20% plus 3¢/lb.	"
		1950	17.5% plus 3¢/lb.	17.5%
445g	Electric motors and complete parts thereof, n.o.p.	1929	27.5%	15%
		1930	27.5%	15%
		1931	37%	25%
		1936	30%	25%
		1937	30%	15%
		1938	25%	15%
		1947	22.5%	15%
445k	Electric apparatus and complete parts thereof; including instruments and meters, industrial-control equipment, etc.....	1929	27.5%	15%
		1930	30%	15%
		1931	30%	15%
		1936	25%	15%
		1947	22.5%	15%

SOURCE: The Customs Tariff and Amendments.

Table 26

# DUTIES AND IMPORT SHARES OF THE CANADIAN MARKET — SELECTED DATA

(percentage)

Group of products	Average ad valorem rate of duty on dutiable imports			Import share of the Canadian market		
	1928	1938	1953	1928	1938	1953
Rubber manufactures.....	27.8	17.8	19.9	5.0	1.9	5.9
Printing, publishing and allied trades....	21.4	22.1	17.7	11.4	11.4	10.5
Motor vehicles and parts a) parts.....	25.7	20.6	20.1	80.0	54.0	46.2
b) vehicle.....				24.0	11.8	11.1
Gross and products.....	21.3	19.8	13.8	42.8	37.0	38.1
Medicinal and pharmaceutical products..	25.3	19.5	19.5	22.8	16.5	25.0
Paints, varnishes and lacquers.....	14.9	18.2	15.2	16.7	13.9	15.0 <sup>a</sup>
Woollen textiles.....	24.1	27.1	18.7	54.0	29.5	26.0
Cotton textiles.....	24.2	23.6	20.0	21.1	15.6	21.1
Industrial machinery.....	23.0	14.1	13.2	60.4	52.4	60.0 <sup>a</sup>

<sup>a</sup>Approximately.

Table 27

# CANADA: SELECTED YEARS, INVESTMENT IN MACHINERY AND EQUIPMENT AND EXPENDITURE ON SELECTED CONSUMER DURABLES AS % OF G.N.E.

(all in current dollars)

Year	Investment in machinery and equipment as % of G.N.E.	Expenditure on selected consumer durables as % of G.N.E.
1926	4.9	4.4
1927	5.8	4.4
1928	6.2	4.9
1929	7.2	5.0
1930	6.3	4.4
1931	4.3	3.9
1932	2.9	3.6
1933	2.4	3.3
1934	2.9	3.9
1935	3.4	4.3
1936	3.8	4.4
1937	5.2	4.5
1938	5.3	4.4
1939	4.6	4.0

SOURCE: (1) G.N.E.: *Canada National Accounts, Income and Expenditures*, 1926-50.(2) Investment in machinery and equipment: *National Accounts*, 1926-30 adjusted by the Commission.

(3) Selected Consumer Durables: defined as jewellery, household appliances, autos and auto parts and accessories; revised data have been made available by D.B.S.

Table 28

CANADA: AVERAGE AD VALOREM RATE OF DUTY ON IMPORTS,  
SELECTED YEARS

(percentage)

	Average ad valorem rate of duty on	
	<i>Dutiable imports</i>	<i>Total imports</i>
1928	24.4	15.7
1929	24.4	15.9
1930	24.9	16.0
1931	28.9	19.1
1932	30.0	19.1
1933	29.6	17.4
1934	28.4	16.3
1935	27.4	15.3
1936	25.0	13.8
1937	24.0	13.0
1938	24.3	13.6
1939	24.2	13.8

SOURCE: *Trade of Canada*, Vol. I, 1947.

Table 29

## PERCENTAGE OF CANADIAN MERCHANDISE IMPORTS FROM U.K.

Year	Percentage
1896 (fiscal)	31.2
1900 (fiscal)	25.6
1906	24.4
1912 (fiscal)	22.4
1926 (calendar)	16.3
1929	15.0
1932	20.7
1933	24.4
1934	22.1
1936	19.4
1937	18.2
1939	15.2
1947	7.4
1948	11.3
1949	11.1
1950	12.7
1953	10.3
1954	9.6
1955	8.5

SOURCE: Computed from various issues of *Trade of Canada*.

Table 30

# SHARE OF U.K. IN CANADIAN MERCHANDISE IMPORTS OF SELECTED GOODS

(percentage)

	1929	1937
Selected agricultural and animal products, mainly foods, beverages and tobacco . . . . .	22.1	14.5
Textiles, furs, hides and skins and leather products . . . . .	32.4	42.3
Selected capital goods and consumer durables . . . . .	5.1	8.1
Selected industrial materials, mainly for the manufacture of durables . .	9.2	19.8
Chemicals . . . . .	13.9	20.9
Fuels and lubricants . . . . .	3.8	6.0
Miscellaneous consumer goods . . . . .	16.3	18.2
Total imports . . . . .	15.1	18.2

SOURCE: Appendix D, Table IV.

Table 31

# CHANGES IN THE VALUE OF SELECTED GROUPS OF IMPORTS, 1929 TO 1933 AND 1929 TO 1937

	1933 as % of 1929	1937 as % of 1929
Selected agricultural and animal products, mainly food and beverages . . . . .	36.8	56.9
Textiles, hides and skins, furs and leather . . . . .	34.5	58.0
Selected capital goods and consumer durables . . . . .	16.8	58.4
Industrial materials . . . . .	24.0	66.8
Chemicals . . . . .	60.0	93.0
Fuels and lubricants . . . . .	43.8	71.5
Miscellaneous goods . . . . .	34.9	62.6
Total imports . . . . .	30.0	62.2

SOURCE: Computed from data in Appendix D, Table I.

## **CANADA'S FUTURE IMPORT PROSPECTS, AN OVER-ALL QUALITATIVE VIEW — GENERAL STATISTICAL RELATIONSHIPS**

### *I. Introduction and Summary of Results*

Chapters 4 and 5 of this study are concerned with Canada's import prospects. In this chapter we take an over-all or aggregative approach to the problem, considering total merchandise imports and the main types of invisibles. Two methods are used, the first being a general qualitative argument, the other being the application of simple statistical relationships which have had some popularity in the last 15 years. In Chapter 5 we build up the import prospects for particular groups of imports, adding up the values for the particular items to obtain a total.

The over-all or aggregative approach has the attractions of simplicity and of permitting the grand sweep of a few influences to stand out sharply. It has the weakness of neglecting many relevant factors and much economic intelligence. It provides little basis for judging the prospective content and geographical characteristics of Canada's imports. These weaknesses are overcome in the detailed analysis in Chapter 5.

Neither the aggregate nor the details of Canada's future imports can be forecast in the abstract; the magnitude of the imports depends on the size of exports, the direction and level of international capital flows and the level of Canadian import restrictions, as well as on other factors. Further, the composition of the imports depends on the structure of demand in Canada and the structure of Canada's commercial policy, to mention only two classes of influence. Thus the central problem in forecasting imports is to analyze the import implications of various possible situations as regards demand, costs, capital flows, commercial policy and such, together with the consistency of the import and other facets of Canadian economic prospects.

In thinking about Canada's import prospects it is important to distinguish between two levels of analysis: (a) the probable imports assuming that no substantial deficits or surpluses arise in the balance of payments; (b) the

probable adjustment of imports if a balance of payments deficit or surplus appears likely from the initial import and export studies. This chapter is on the first level; it pays no attention to balance of payment considerations. The reconciliations of import prospects, export prospects and other features of Canada's economic prospects is our concern in Chapter 6.

It is the preliminary judgment of this chapter that, with the existing commercial policy, the long-run ratio of Canada's imports of goods and services to G.N.P. will decline slightly from 1953 levels, (26%) to 22% to 24% by 1980.

## ***II. The Theory of International Trade and Models for Forecasting Canada's Imports***

Let us turn for a moment to the theory of international trade, in order that we may be clear on what it is that we are forecasting and the steps involved. An early step in constructing a theory of international trade is to ask, given a set of international prices, transfer costs and tariffs, what are the demands for imports by a country.<sup>1</sup> The answer for this turns on the tastes of people within the country, the availability and prices of productive inputs and the general supply conditions within the country (and thus, the incomes of the people). Having asked about the international demands of a country under a given set of conditions, the theorist must go on to other steps, asking about the exports which the country would like to achieve under the given conditions and ultimately about the consistency and reconciliation of the various export and import desires of various countries. To analyze changes in foreign trade the theorist would have us consider the implication of each change for the import and export desires of various countries and, again, the process of reconciliation of the various desires of various countries.

In a sense we are only concerned here with part of the analysis, with the step of asking about import desires of Canadians under various specified conditions.

Canada's demand for imports of any particular commodity is a derived demand. Canadian consumption of the commodity will depend on the incomes in Canada, the tastes of Canadians, and the prices of various goods and services. Canadian output of the commodity may meet varying proportions of the Canadian demand, depending on the techniques of production, costs of productive inputs and the prices of this and other commodities. In most cases the foreign price of the commodity from foreign sources may be taken as a datum, influenced or determined in only minor degree by Canadian actions. The Canadian price may differ from the foreign price by greater or lesser degree depending on Canadian commercial policy. At any given foreign price for the commodity, there will be a maximum Canadian price, and a division of the Canadian market at that price between Canadian and foreign suppliers.

<sup>1</sup>The better-known works on the theory of international trade are set out in Part A of the Bibliography to this study.

It follows that speculation about Canadian import desires under various conditions, (even this is only a partial step in a complete analysis) may be broken down into four steps: (1) consideration of the effects of the prospective economic conditions on the total demands for various commodities in Canada; (2) changes in Canadian supply conditions in the production of import-competing goods; (3) changes in world prices; (4) changes in the difference between world and Canadian prices brought about by changes in Canadian commercial policy. For some purposes it may be convenient to focus attention on the probable sharing of the Canadian market between foreign and domestic sources of supply, the sharing being the joint result of (2), (3) and (4) listed above.

We can sidestep some of the issues temporarily in our forecasting. For example, we can assume temporarily that the structure of international prices remains unchanged from that which now (1955) exists. We can assume throughout that Canadian commercial policy is unchanged. Given some working judgment on national output and the broad characteristics of national demand, we can ask about prospective imports. This is what we do. Ultimately we must follow our theoretical guide and ask about the consistency of the export and import positions, and about the consistency of international and domestic prospects for the whole economy and for various sectors. If there is inconsistency, we should indicate the kinds of adjustment appropriate; this is part of our task in Chapter 6.

### *III. Canada's Import Prospects — A Qualitative Assessment*

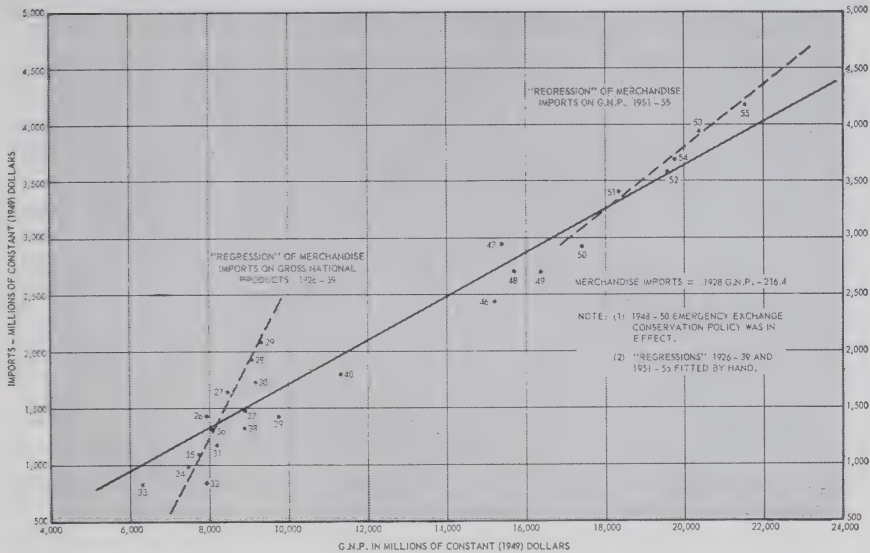
#### *(a) Procedures and Conclusions*

This is a first run at the forecasting of Canada's future imports. The central idea is to form a judgment regarding the long-run trend in the ratio of imports to Canada's G.N.P. Whatever the long-run prospects, there can be short-run variations from the trend; indeed systematic short-run departures from the trend will certainly occur with short-run variations in the level and kind of Canadian economic activity. For the moment, such considerations are put aside.

In this first run at forecasting imports, the procedure is essentially qualitative. The factors which appear to be mainly responsible for the historic long-run changes in Canadian import-G.N.P. relations are reviewed; the main factors likely to influence the relative size of imports in the future are set down, together with a preliminary judgment on the direction and magnitude of their effects. A balance is struck. Such a qualitative approach is based on the belief that the main lines of one's theory are sharply displayed and the net impressions of a myriad of quantitative and qualitative studies and judgments regarding the Canadian economy can be brought to bear. This first run at forecasting imports may be looked upon as a working hypothesis, which has some intuitive appeal.

## CANADA: MERCHANDISE IMPORTS AND GROSS NATIONAL PRODUCT IN CONSTANT (1949) DOLLARS

Chapter 4, Chart VIII,



Certain assumptions are basic to this forecast. They are:

- 1) continued peacetime, full-employment levels of economic activity in Canada;
- 2) a holding fixed of the level of Canada's tariffs, and of other elements of commercial policy;
- 3) continued long-run economic growth as outlined in the forecasts of population and G.N.P. contained in the study of output, labour and capital in the Canadian economy.<sup>2</sup>

Under these assumptions it is our preliminary judgment that the ratio of merchandise imports to G.N.P. will decrease from the 1953 level (19.2%) to 15%-17% by 1980, and the ratio of imports of services (or invisibles) to G.N.P. will tend to decrease a little compared with 1953 levels (6.8%) to 6.2%. Thus the long-run ratio of imports of goods and services to G.N.P. will tend to decline to a range of 21.2% to 23.5%. All these judgments are expressed in terms of constant (1949) dollars. We now turn to the underpinning for these judgments.

### (b) Summary of Historical Changes in the Import Ratio

In Chapter 3 we discussed the factors influencing the ratio of imports to G.N.E. The relevant factors for Canada appeared to be:

<sup>2</sup>Wm. C. Hood and Anthony Scott, *Output, Labour and Capital in the Canadian Economy*, Ottawa, 1957. Of the various projections of output made in this study, the one which has been used throughout most of the Commission studies is the average of the high and low projections, assuming an annual net immigration of 75,000.

- 1) *Changes in the supply conditions in the export as compared with the import competing industries in the country.* By supply conditions are meant the relative availability of inputs of the primary and intermediate factors of production, technological changes, and economic organization (including scale of operation) of the industries. With any given set of prices, if the changes in supply conditions result in larger relative increases in the output of export commodities than of import competing commodities in the country, this will result (*ceteris paribus*) in an expansion of exports and imports relative to total output.
- 2) *Changes in the domestic terms of trade between export and import competing products.* If the Canadian prices of export commodities increase relative to the Canadian prices of import competing products, this will tend to increase the exports and imports relative to total output. As a rough approximation we are prepared to treat the world price structure as a datum for Canada, the domestic terms of trade between export and import competing products being, then, the world terms modified by Canadian commercial policy. A general increase in Canadian tariffs would result in decrease in imports and exports relative to G.N.P.
- 3) *Shifts in the demand of Canadians for various products, particularly the demand for domestic products compared with the demand for internationally-traded goods.* By domestic products are meant those for which transportation costs are or are nearly prohibitive to international (and most interregional) trade. If, as has so often been asserted, increases in per capita income lead to more than proportionate increases in demand for the output of (domestic) service industries, this will tend to reduce the imports and exports of a country relative to its national output. Perhaps even more important are changes in demand among items which are internationally traded, such as a shift from expenditure on food (which has a low import content) to expenditure on consumer durables which have a much higher import content.
- 4) *A change in flows of international capital or in international indemnities.* A decrease in the capital inflow into a country would tend to decrease imports and increase exports relative to G.N.E.<sup>3</sup>

The ratio of imports and of exports to G.N.E. is somewhat smaller now than it was in the late 1920's. Why? In Chapter 3 we examined this trend with the following conclusions.

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<sup>3</sup>The relationship between capital flows and trade is not quite this simple. It may be that when a number of important export and/or import competing projects are in the early stages of development, large capital inflows take place. To make the real transfer of these, exports will be decreased and imports increased in the developmental stage. As the projects come to fruition, the need for capital decreases and as a direct result of the projects, exports will increase and/or imports fall. If, however, the change in current international account gets out of step with the capital flows, the mechanism of adjustment will adjust the exports and imports to the long-run autonomous capital account.

Canadian tariffs are somewhat lower now than they were in the late 1920's; this change works in the opposite direction to the observed change in the import ratio.

The average world market price for Canadian exports relative to the average world market price for Canadian imports (of a type competitive with Canadian output) appears to be slightly higher now than they were in the late 1920's.<sup>4</sup> This would tend to enlarge slightly exports and imports relative to G.N.E. The combination of the tariff changes and the terms of trade (defined in the narrow sense used in this discussion) means that the ratio of duty-paid prices of imports which are competitive with Canadian production are now somewhat lower relative to the prices of exports than they were in the late 1920's. The terms of trade have fluctuated around the trend during the last three decades.

Capital inflows into Canada appear to be slightly smaller now relative to G.N.E. than they were in the late 1920's. The net foreign capital inflow averaged 1.98% of G.N.E. in 1926-30 and 1.68% of G.N.E. between 1951 and 1955. This factor would imply a slightly smaller ratio of imports to G.N.E. now than in the late 1920's.

There appears to have been a slight relative growth in the demand for the output of domestic industries, *i.e.* industries or activities in which transportation costs or political considerations almost prohibit international commerce. This growth tends to reduce the ratio of imports and exports to G.N.E. However, the mixture of goods demanded has shifted toward those of relatively high import content, such as investment in machinery and equipment and consumer durables. In Chapter 3, we concluded that the change in the mixture of goods and services demanded did not take us very far in explaining the historic decline in the openness of the Canadian economy.

Finally we come to the question of whether there has been any improvement in the cost position of Canada's import-competing industries compared with Canada's export industries. Such an improvement would, other things being fixed, tend to reduce the level of exports and imports compared with G.N.E. We concluded that a small gradual improvement in this respect had taken place between the late 1920's and the present time. Despite significantly lower levels of protection, the average import share of the Canadian market over a fairly broad range of Canadian manufacturing activities is now (average 1953-55) slightly smaller than it was in the late 1920's. The main factor appears to be the increase in scale of production of the typical Canadian enterprise. A contributing factor may have been the increased use of American technological and organizational methods. In addition to the gradual processes of growth there were at least three dramatic changes in the import-competing position of the Canadian economy, namely western Canadian petroleum discoveries and the development of synthetic rubber and synthetic textiles.

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<sup>4</sup>See Hood and Scott, *op. cit.*, Chap. 2.

To sum up, the observed historic decline in the ratio of imports to G.N.E. appears to be due to a small relative decrease in capital inflows, a small improvement on the average in the comparative advantage (or reduction in the comparative disadvantage) of Canadian manufacturing activities, the development of western Canadian oil production, and synthetic textiles and rubber, these three factors being sufficient to more than offset the decrease in the average level of protection of Canadian manufacturing activities.

(c) *Speculations on the Future Import Ratio*

The somewhat cavalier review of the past trends in the import-G.N.E. ratio points to the factors which must be considered to arrive at a judgment regarding future trends.

Since we assume that import duties and other aspects of protection remain fixed, no change in the import-G.N.P., ratio is expected on this account.

It is our judgment that some small improvement in supply conditions in import-competing industries in Canada will take place, comparing these industries with export industries.

First, the increase in the absolute size of the Canadian market and the Canadian economy will bring cost reductions to the import-competing industries (which are typically much worse off relative to minimum efficient North American scales of production than are the export industries). Second, we see no reason to expect significantly different rates or forms of technological progress in the export than in the import competing industries; third, we do not foresee any particularly pressing limitations of inputs peculiar to the export industries or to the import-competing industries. Undoubtedly, some import-competing industries will find themselves squeezed by higher cost labour. Fourthly, some technological advances in the United States (and elsewhere) will have the effect of making the optimal scale of plant very much larger than it now is; in comparative terms, this will tend, at least partly, to offset the improvements in cost positions which should accrue to Canadian manufacturing due to the increased size of the Canadian market. To put this point in more popular terms, it is our judgment that automation in the United States will not provide revolutionary changes in the average of manufacturing costs in the United States compared with those in Canada, but that in some lines of production it will worsen the Canadian competitive position.

No more than a hazy notion can be formed of the prospective long-run terms of trade of Canada. In our judgment the prospects are for favourable foreign demands for our exports, and for foreign supplies of manufactured goods to remain comparatively cheap, particularly for engineering goods and consumer durables. This suggests that there may be some small improvement in the prices of Canada's export commodities relative to the prices of imports which compete with Canadian manufacturing. It also suggests favourable opportunities for international specialization, and a comparatively high ratio of imports to G.N.P.

It is our judgment that some increase will take place in Canada in the demand for the output of domestic industries compared with the demand for internationally traded commodities. The demand for services, including the provision of government services, will probably continue to expand relatively. This will tend to reduce the import-G.N.E. ratio. However, among the goods which enter directly or indirectly into international trade, it appears that the Canadian demand for those with relatively high import content (such as machinery and equipment and consumer durables) will tend to expand relative to those with much lower import content (e.g. structures, food).<sup>5</sup> Such a change will partly offset the reductions in the import-G.N.E. ratio due to increased demand for services.

Present indications are that the full impact of the western Canadian oil discoveries in reducing (relatively) Canada's imports has not yet been felt.

It is our judgment that capital flows into Canada as a ratio to G.N.E. are unlikely to be larger in the future than they were between 1953 and 1955, and will probably be somewhat smaller.<sup>6</sup> If smaller, this will tend to reduce the ratio of current imports to G.N.P.<sup>7</sup>

In our judgment the net effects of all of these factors is a slight long-run decline in the ratio of merchandise imports to G.N.E., balance of payments considerations aside. Our guess is that the small improvement in cost conditions in manufacturing in Canada compared with alternative sources of supply, the growth in Canadian demand for goods and services which do not enter into international trade, a probable decline in the ratio of capital imports to G.N.E. and the expected development of Canadian oil and gas production outweigh the tendency for the Canadian demand for internationally-traded goods to shift toward goods of higher (direct or indirect) import content. On the other hand, we find it difficult to believe that the long-run ratio of merchandise imports to G.N.E. will change greatly, that is by more than three or four points in the next 25 years, *i.e.* from the 1953 level of 19.2% (measured in constant (1949) dollars). Our guess is that the 1980 ratio will be of the order of 17%.

#### (d) *Non-Merchandise Imports*

Let us turn for a moment to the non-merchandise items in Canada's imports, such items as foreign travel, payments for current shipping services and various commercial services, and payments of interest and dividends to foreigners. In our judgment the ratio of Canada's invisible imports to G.N.P. will decrease slightly from the average levels of recent years. In 1949 dollars, the

<sup>5</sup>For forecasts of investment expenditure, see Hood and Scott, *ibid.* For forecasts of the distribution of consumer expenditure, see David W. Slater, *Consumption Expenditures in Canada*.

<sup>6</sup>See Hood and Scott, *ibid.*; Also, Irving Brecher and S. S. Reisman, *Canada-United States Economic Relations* and R. V. Anderson, *The Future of Canada's Export Trade*.

<sup>7</sup>Further, the rate of growth of both G.N.E. and imports will be slower if the capital inflow is greatly reduced, than if higher levels of capital inflow take place.

imports of invisibles amounted to 6.8% of gross national production in 1953 and 7.2% in 1955; the expected level by 1980 is about 6.2% of G.N.P. The projected rate of decline in the next 25 years is smaller than took place between the late 1920's and recent experience, mainly because the general assumption of the Commission's forecasting models preclude as sharp a decrease in the ratio of gross liabilities to foreigners relative to G.N.P. as took place during the 1930's and 1940's.

In our judgment, imports of freight and shipping services will probably grow somewhat less rapidly than Canada's merchandise imports, mainly because a further decrease is expected in the proportion of Canada's imports consisting of coal and petroleum. On the other hand, on a comparative cost basis, it is likely that increased proportion of Canadian ocean and shipping services will be carried in foreign ships. However, this factor has operated in the past without there being a substantial increase in the ratio of Canadian payments to foreigners for shipping services relative to the over-all value of merchandise imports. As merchandise imports are expected to increase more slowly than gross national production, while freight and shipping payments are expected to decrease slightly relative to merchandise imports, the result is an expectation of significantly slower rate of growth in payments to foreigners for shipping and freight services than in Canada's G.N.P.

Interest and dividend payments appear unusually small at present, compared with the growth in Canada's gross liabilities to foreigners which has taken place during the last decade. Thus, entirely aside from the future changes in Canada's gross liabilities to foreigners, some (absolute) increase in the interest and dividend payments is to be expected. In addition, the gross liabilities to foreigners will increase absolutely, partly through further inflows of capital, in a balance of payments sense, and partly through the reinvestment of earnings of foreign-controlled companies in Canada.

In recent years Canada's gross indebtedness to foreigners has been increasing more rapidly than Canada's gross national output. This may continue for a few years, but, in our judgment, the long-run prospects are for the rate of growth in our liabilities to foreigners to be less than in our output. By 1980 we may well have a ratio of these liabilities to our national output which is as high or higher than that which existed in 1955, though the rate of annual increase in gross indebtedness will probably then be less than the rate of increase in output. As the interest and dividend payments will be primarily determined by the size of the gross indebtedness it appears likely that they will bear no smaller a ratio to Canada's G.N.P. in 1980 than they have in recent years. Tentatively we have assumed that the interest and dividend payments will increase more rapidly than Canada's gross national output during the next ten years, but that average rate of growth over the next 25 years will be about the same as in G.N.P.<sup>8</sup> This is as conservative a judgment as we could accept.

<sup>8</sup>These matters are examined more fully in the next chapter.

The other large items in Canada's current purchases of services from foreigners are tourist and travel expenditures and a mixed grab-bag called other current debits. Foreign travel is one of the factors for which Canadians appear to have a rather high income elasticity of demand. Thus we expect this item to grow at about the same rate as G.N.E. Other current debits include government expenditures abroad, *e.g.* on diplomatic missions, such official contributions as those to the Colombo Plan, personal and institutional remittances, such payments for business services as royalty, patent and copy-right payments, charges for administration and management. In recent years there have been comparatively large payments associated with Canadian troops abroad. This type of expenditure has been assumed to increase less rapidly in the future than Canada's G.N.P. Also personal and institutional remittances are expected to grow less rapidly than Canadian output, because of the relative decline in immigration into Canada, which was assumed in the projections of national output. The other items in this basket have been growing at the same rate as gross national output, and this is expected to continue.

To sum up, it is our judgment that the relative decrease in the payments for freight and shipping services and in other current debits will result in a slightly smaller ratio of non-merchandise imports to G.N.E. in 1980 than at present. However, it is our expectation that between now and 1980 there will be a rise in the ratio above present levels, with a subsequent decline to the 1980 levels, mainly due to a period of five to ten years in which interest and dividend payments to foreigners increase substantially relative to G.N.P.

#### (e) *Summary of Preliminary Speculations*

Putting the speculations on merchandise and non-merchandise imports together, the net outcome is an expectation of a very slight decline in the long-run ratio of imports of goods and services to G.N.E. (balance of payments considerations aside) probably by not more than four points from present levels in 1980. It appears that the long-run drift is in this direction; it is unlikely that the ratio will be higher in 1980 than it is at present.

Finally, the rough qualitative speculations regarding the future of our imports imply certain characteristics of the content and geographical source of imports. It is likely that consumer durables and parts and materials for such commodities will be a larger proportion of the total imports; as in the past these items will come almost exclusively from the United States. Machinery and equipment will also probably increase as a proportion of the total imports; in the past these items have come mainly from the United States and they will probably do so in the future. Machinery and equipment imports appear to be the most important opportunity for expanded sales in Canada by the United Kingdom and Western Europe.

It appears unlikely that tropical and semi-tropical foods and raw materials will be as important a part of the Canadian imports in the future. It also appears likely that non-tropical materials for clothing and personal furnishings

will decline as a proportion of the import bill. Imports of fuel will probably decline as a proportion of the total Canadian imports.

It appears that the United Kingdom and Western Europe will do well to hold their present share in the Canadian markets. Their exports of clothing and personal furnishings to Canada will probably decline relatively; to hold their present position they must achieve significant increases in their exports of machinery and equipment to Canada. It appears that a small further increase in the proportion of Canadian imports coming from the United States is possible, with the increases in imports of durable goods offsetting the decreases in imports of fuel and cotton goods from the United States. It is probable that the Canadian imports from the Caribbean area will decline as imports of petroleum products are replaced by Canadian sources of supply.

#### IV. Statistical Import Relationships

##### (a) Introduction

In many of the analytical and forecasting models which have been used in the last 15 years, reliance has been placed on relatively simple statistical relationships. In some cases imports have been treated as a simple linear function of income; in other models imports have been treated as linear functions of income, some index of relative or absolute prices and perhaps some measure of trade restrictions. In some cases, imports have been divided up into types, each being related in some simple way to one or two (appropriate) determining indexes of activity.<sup>9</sup>

Simple statistical forecasting techniques have a superficial attractiveness. If a satisfying theory underlies the relationships and if the relationships provide a good fit to past observation, it is tempting to extrapolate the past

<sup>9</sup>The following books and articles include work on statistical import relationships:

Hans Neisser and Franco Modigliani, *National Incomes and International Trends*, Urbana, Illinois, University of Illinois Press, 1953.

J. J. Polak, *An International Economic System*, Chicago, University of Chicago Press, 1953.

D. D. Humphrey, *American Imports*, New York, The Twentieth Century Fund, 1955.

National Bureau of Economic Research. *Long-Range Economic Forecasting*, New York, 1955.

J. H. Adler, E. R. Schlesinger and E. Van Westerborg, *The Pattern of United States Import Trade Since 1923*, New York, Federal Reserve Bank of New York, 1952.

G. H. Orcutt, "Measurement of Price Elasticities in International Trade", *Review of Economic Statistics*, May, 1950.

A. C. Harberger, "A Structural Approach to the Problem of Import Demand", *American Economic Review*, May, 1953.

T. C. Chang, "International Comparison of Demand for Imports", *Review of Economic Studies*, Vol. XIII (2), No. 34.

R. Hinshaw, American Prosperity and the British Balance of Payments Problem, *Review of Economic Statistics*, 1945.

I. deVegh, "Imports and Income in the United States and Canada", *RESTAT*, August, 1941.

See also various articles on United States imports in the *Survey of Current Business*, U.S. Dept. of Commerce, Washington.

relationships into the future. However, when making such extrapolations it must be recognized that the relationships in the past depend on a set of underlying circumstances; account must be taken of the way in which the future circumstances may differ.

In this section two or three very simple statistical explanations of Canada's imports are examined and the forecast which they imply are set out, together with some of the limitations of these forecasts.

(b) *Imports as a Simple Function of G.N.P.*

The simplest statistical explanation of imports is to treat merchandise imports as determined (except for random elements) by G.N.P. The form of the relationship must be assumed, and in most cases, imports are treated as a linear function of some measure of income or output, such as G.N.P. Given a sample of (historical data) on imports and income, estimates are made of the parameters of the linear expression.

If we follow this procedure for the Canadian merchandise imports and G.N.P., both measured in constant (1949) dollars, (using data from 1926-40 and 1946 to 1954) we obtain the following statistical import relationship.<sup>10</sup>

$$\left\{ \begin{array}{l} \text{Canadian merchandise} \\ \text{imports in millions of} \\ \text{1949 dollars} \end{array} \right\} = -216.4 \text{ plus } [.1928] \left\{ \begin{array}{l} \text{Canadian} \\ \text{G.N.P.} \\ \text{in 1949 dollars} \end{array} \right\}$$

The observed and expected values of imports are plotted in Chart IX.

However well this equation explains the long-term development of Canada's imports, it is certainly not satisfactory as a short-run forecasting device. Prior to World War II the positive differences between the observed and expected imports increase quite sharply in the late 1920's; large and increasing negative differences arise in the early 1930's. The equation is unsatisfactory in explaining the drop in imports between 1937 and 1938, and the increase between 1946 and 1947. It could hardly be expected to be satisfactory between 1948 and 1950 in view of the Canadian emergency exchange conservation measures.

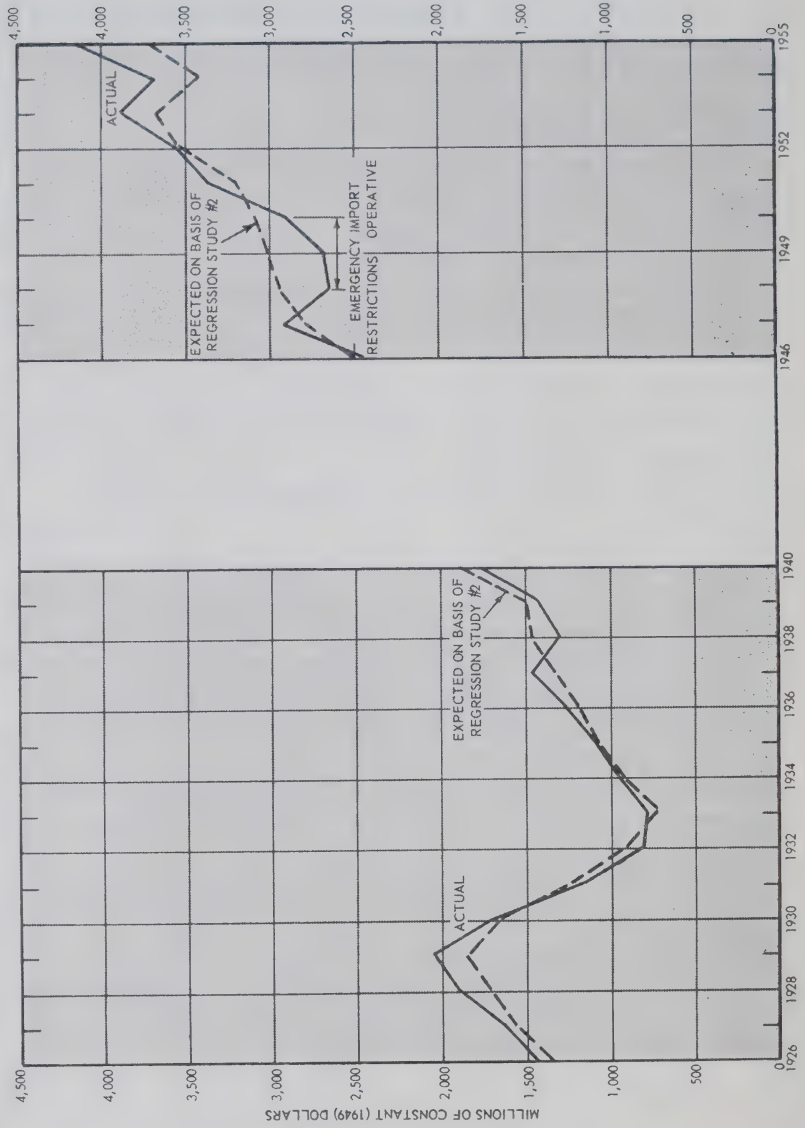
For our purposes the main question is whether the equation is a reasonable explanation of the long-run trend of imports and whether the equation is a roughly satisfactory mechanism for forecasting the long-run trend of imports in the future. Two points can be made. First, it would underestimate the level of imports under full-employment conditions because the equation is based on observations of both full-employment and depression periods. In Chart IX imports in all years of full employment lie above the line except for 1946, 1948, 1949 and 1950, the latter three being peculiarly influenced

<sup>10</sup>The equation is  $m = \alpha + \beta y + \mu$  where  $m$  = merchandise imports,  $y$  = G.N.P., and  $\mu$  is assumed to be a normally distributed random variable, with mean 0.

The estimate      a of  $\alpha$  = -216.4  
 "      "      b of  $\beta$  =      .1928  
 $R^2$                       =      .947

Both a and b are significantly different from zero.

CANADA: IMPORTS OF MERCHANDISE IN CONSTANT (1949) DOLLARS, ACTUAL AND EXPECTED ON BASIS OF REGRESSION OF IMPORTS ON G.N.E. AND THE RATIO OF PUBLIC AND PRIVATE INVESTMENT ON MACHINERY AND EQUIPMENT TO G.N.E.



by emergency import restrictions. Second, as an indicator of the past trend of import-income relationships, the estimated slope of the curve (.1928) — which may be taken as an estimate of the long-run marginal propensity to import — does not appear to be too unsatisfactory. The correlation coefficient is high. If the average ratio of imports to G.N.E. between 1927 and 1929 and between 1951 and 1955 were taken as points on the long-run import-G.N.E. relationship, the slope of such relationship would be approximately .168, slightly less than the estimated b.

(c) *Imports as a Function of Income and Ratio of Investment in Machinery and Equipment to Income*

Two observations suggest a method of significantly improving the explanation of the past record of import fluctuations. It has been shown that imports of machinery and equipment are a large proportion of Canadian gross expenditure on new machinery and equipment. Also the ratio of investment in machinery and equipment to G.N.E. is positively correlated with short-term fluctuations in income. This suggests that a simple statistical function which treats imports as a function of (1) G.N.E. and (2) the ratio of machinery and equipment expenditure to G.N.E., will provide a better description of trend and year to year fluctuations in imports. Such a regression has been calculated with the following results:

$$Y = -546.52 + .1567X_1 + 117.5161X_2$$

where Y = total imports for domestic consumption in millions of constant (1949) dollars.

$X_1$  = G.N.E. in millions of constant (1949) dollars

$X_2$  = Public and private expenditure on machinery and equipment as a percentage of G.N.E., both measured in constant (1949) dollars.

$$R^2 = .974.$$

While this statistical function is a somewhat better fit to the past observations than the previous function, it still has many of the same shortcomings. In the first place the level of imports predicted for full-employment conditions is too low. Second, the function systematically underestimates imports in short-run periods of rapidly increasing income and overestimates the imports in periods of rapidly falling income. Thus the function is not satisfactory for short-run forecasting. Finally, because of the strong positive correlation between  $X_1$  and  $X_2$ , we cannot have too high a confidence in the values of the individual regression coefficients.

(d) *Forecasting Merchandise Imports from the Simple Statistical Relationships*

For those who have an interest in statistical forecasting devices, let's see what magnitude of future merchandise imports are implied by extrapolations of the simple statistical relationships. Suppose that we use 1953 as a base and project the imports using the slopes of the curves; in this way we will attempt to overcome the fact that the fitted equations understate the level of full employment imports. The tentative results are set out in the following table.

These estimates should hardly be dignified by the term forecasts — they are simple extrapolations into the future and could only be satisfactory long-run forecasts if the underlying situation changed in the future as it has in the past. In our judgment the estimates in the bottom half of the table are somewhat better than those in the top half, both because the model corresponds more closely with our *a priori* beliefs about the relationships between Canadian economic activity and imports and because the fit to past observations is better.

We could go on experimenting with aggregate import functions, introducing other variables such as import prices and working with other forms of relationship. However we do not think that such a procedure would be a particularly fruitful one. It is rather unlikely that we can derive a function which is fully satisfactory both for short-run and long-run forecasting. In any case we have an alternative which we would expect to be somewhat better; this consists of working with groups of imports, trying to forecast each group and build up the aggregate from the pieces. This is the matter of the next chapter.

### Statistical Forecasts of Imports

	Merchandise imports	G.N.E.	Imports as % of G.N.E.	Assumed ratio of investment in machinery and equipment to G.N.E.
(millions of 1949 dollars)				
1. 1953	3,916	20,353	19.2%	8.9
2. On basis of long-run marginal propensity to import estimated in the first regression, (i.e. mpm — .128)				
1965	6,229	32,350 <sup>a</sup>	19.3	N
1970	7,839	40,700	19.3	/
1975	9,680	50,250	19.3	A
1980	11,897	61,750	19.3	
3. On basis of second regression.				
1965	6,820	32,350 <sup>a</sup>	18.0	9.1 <sup>b</sup>
1970	7,177	40,700	17.6	9.5
1975	8,637	50,250	17.0	9.2
1980	10,592	61,750	17.2	10.5

<sup>a</sup>Based on forecast of G.N.E. assuming that net immigration equals 75,000 per annum, averaging high and low prospects.

<sup>b</sup>Based on forecasts of investment contained in Wm. C. Hood and Anthony Scott, *Output, Labour and Capital in the Canadian Economy*.

## **A DETAILED EXAMINATION OF CANADA'S IMPORT PROSPECTS**

### ***I. Introduction and Summary***

In Chapter 4 the prospects for Canada's imports were examined in a broad aggregative model. In this chapter the concern is with the prospects, dealing directly with various groups of imports. The fundamental attraction of this procedure is that more economic intelligence can be brought to bear on the problem by examining various types of imports than if the analysis is confined to the total. Dealing with groups of imports it is possible not only to build up a total from the parts but also to say something about the prospective content and geographical source of imports.

The main groups used in this chapter are those which were developed in Chapters 2 and 3. They are:

- Foods
- Beverages and tobacco
- Textiles and clothing and personal furnishings
- Appliances, radio equipment and furniture
- Miscellaneous consumer goods
- Automobiles, trucks and parts
- Machinery and equipment
- Aircraft and engines
- Materials for structures and miscellaneous investment goods
- Coal
- Petroleum and products
- Selected basic chemicals
- Miscellaneous unassigned industrial materials
- Special items
- Invisibles or Services

At the outset it should be emphasized that neither the forecast of aggregate imports nor of the content and geographical source of the imports should be taken too seriously. The forecast can only be made in a conditional sense;

if the world turns out to be somewhat different than was assumed in the forecasting model then nothing is surer than that imports will be different in the aggregate and probably in content from those shown below. Even under a fairly specific set of forecasting assumptions, there are many gaps in our information on the prospective development of the Canadian market and the sharing of this market between domestic and imported sources of supply. The most that can be claimed for the efforts in this chapter is that an attempt has been made to work out the import implications of a set of developments of the Canadian economy, and to do this in a consistent way.

Initially, no consideration has been given to the question of whether Canada shall have sufficient foreign exchange to pay for the imports. The reconciliation of the import prospects and the prospects for exports and capital flows takes place at a later stage of the study. However, the present chapter provides some insight into the many and powerful ways in which imports may be expanded or contracted according as Canada's external means of payments are larger or smaller. One by-product of the detailed consideration of the import prospects has been the conviction that Canada has very great long-run possibilities of adjusting the level of her imports to various possible economic circumstances.

As in other studies prepared for the Commission, a number of general assumptions have formed the basis of the detailed consideration of import prospects. These are:

First, the continuation of a rapidly growing full-employment economy facing no major international conflicts. It has been assumed that the prospective growth of this economy can be described by the average of the high and low forecasts of G.N.P. set out in the study, *Output, Labour and Capital in the Canadian Economy*.<sup>1</sup> This study forecasts almost a tripling in Canada's G.N.P. between 1955 and 1980, measured in constant 1949 dollars.

Second, the Canadian commercial policy (including the actual customs rates, the administrative interpretations of class or kind legislation, and the end-product classifications in the tariff schedule) and foreign exchange policy have been assumed to be the same in the future as at present.

Third, in dealing with a number of products where there has been some indication of improvement in the Canadian comparative advantage during the last three decades or so, it has been assumed that a small continued improvement will take place.

Before turning to the detailed analysis the main types of conclusions which arise from this chapter may be stated. In most general terms it appears unlikely that imports will play a very different role in the Canadian economy during the next 25 years than they have during recent years. The present and prospective levels of the total and the main classes of merchandise imports are set out in Table 32. Adding up the various categories of imports in the

<sup>1</sup>Wm. C. Hood and Anthony Scott: *Output, Labour and Capital in the Canadian Economy*, Ottawa, 1957. Throughout most of the Commission's studies the forecasting base has been taken as the average of the high and low forecasts of G.N.P., both assuming annual net immigration of 75,000.

table, the probable level of total merchandise imports is of the order of \$10 billion in 1980, compared with \$4.3 billion in 1955, both measures in 1949 prices. The imports are expected to increase a little less rapidly than G.N.P., and thus the gradual long-run decline in the ratio of merchandise imports to G.N.P. experienced during the last three decades is expected to continue.

Perhaps more important than the total is the expected development of the main categories of imports. The present importance of imports of machinery and of equipment in the Canadian total has been noted earlier. The expectation is that imports of machinery and equipment will grow more rapidly than G.N.P. and thus imports of machinery and equipment will become even more important as a part of the total Canadian import bill. As will be seen later this is fundamentally based on an expectation that the investment in machinery and equipment in Canada will grow more rapidly than G.N.E. and that the imports of machinery and equipment will increase despite some small decrease in the proportion of the Canadian market supplied by foreign producers. A rather rapid growth is expected in the imports of miscellaneous manufactured consumer goods. These have already increased very greatly as a proportion of Canadian imports and a further increase in their importance is expected. The projected imports of food, tobacco, alcoholic beverages, clothing and personal furnishings and material for such uses follow past trends. It was noted in Chapters 2 and 3 that these items had become progressively smaller parts of the total Canadian bill of imports and it is expected that they will become even smaller parts of the total import bill in the future. Probably the most important difference between the historical experience and the prospects as set out in Table 32 concerns the imports of coal and petroleum. Between the late 1920's and 1947 or 1948, imports of fuels became increasingly important parts of the total Canadian import bill. As was pointed out elsewhere, the development of western Canadian oil provided an almost revolutionary change in Canada's import position; a change which had only partly been felt by 1955.

To sum up, the past experience for Canada has been that imports of producer and consumer durables and materials for such items have become progressively more and more important a part of the total import picture; it is expected that this will continue and that the growth in such imports will make Canadian imports a good deal larger than they might otherwise be. Similarly, in the past imports of chemicals have tended to become much more important and this is expected to continue while imports of other industrial materials are expected to become somewhat less important. Imports of soft goods including foods, tobacco, alcoholic beverages, clothing and textiles are expected to continue to decline relatively.

The prospective content of Canada's imports suggests that the proportion of the total derived from the United States may be expected to increase beyond present levels, the proportion derived from the United Kingdom and Western Europe declining a little and the proportion derived from other areas decreasing fairly markedly. Imports of machinery and equipment and consumer durables

and miscellaneous manufactured consumer goods are expected to grow as a proportion of the total import bill; the American share in these imports is very high and is unlikely to decrease substantially. Imports of alcoholic beverages, clothing and personal furnishings are expected to decrease as a proportion of the total imports; the British and European shares in Canada's imports of these items is unlikely to grow rapidly enough to offset their decreasing importance in the import total. Indeed, in view of the relatively heavy weight of wool textiles and leather goods in the Canadian imports of clothing and personal furnishings from the United Kingdom and the expectation of a substantial relative decline in the imports of these items, it is not unreasonable to expect the British share of these groups of imports to decrease. Providing that the British and the Europeans hold their present share of the Canadian market for capital goods, their over-all share of Canada's imports should not decline a great deal below present levels. The expectation of a decrease in the proportion of Canada's imports derived from areas other than the United States, the United Kingdom and Western Europe is mainly based on the view that imports of petroleum will grow less rapidly than they have in the past; in addition, a somewhat less rapid growth than the average of Canadian imports is expected for dried fruits, raw wool, raw sugar and jute and grass products, changes which tend to decrease the proportion of the total imports derived from areas other than the United States, the United Kingdom and Western Europe.

Turning to Canada's invisible or service imports, the general conclusion of this chapter is that these items collectively will increase from about \$1.5 billion in 1955 to about \$2.2 billion in 1965 and \$3.8 billion in 1980, all in terms of 1949 prices. The details are set out in Table 33. The difference between our experience during the last 30 years and our views of the prospects in the next 25 is much sharper for invisibles than it was for merchandise items. The ratio of invisible imports to Canada's G.N.P. has been much smaller in recent years than it was in the late 1920's, mainly because of a large relative decline in Canada's interest and dividend payments to foreigners. It is our expectation that the ratio of invisible imports to G.N.P. will decline much less between 1955 and 1980 than it did between the late 1920's and 1955, mainly because of the different behaviour of the interest and dividend account. In many of the years between 1929 and 1955, Canada's gross liabilities to foreigners fell absolutely; in many more years they grew much less rapidly than G.N.P. This development was largely a by-product of a major depression and war. As our terms of reference exclude both of these situations, it seems likely that Canada's gross liabilities to foreigners will grow absolutely in the future, and perhaps at a pace as rapid as G.N.P.

Considering goods and services as a whole, the prospects are for imports of the order of \$13.5 billion by 1980 compared with \$5.7 billion in 1955, both expressed in 1949 prices. In terms of 1955 prices the imports of goods and services are expected to be about \$15.1 billion by 1980, compared with \$6.4 billion in 1955.

Table 32

## SUMMARY OF PROSPECTS FOR MERCHANDISE IMPORTS

Groups	Actual in millions of current \$			Actual in millions of constant (1949) \$			Prospects in constant (1949) \$		Constant \$. %			1980 as % of 1955
	1953	1954	1955	1953	1954	1955	1965	1980	1955	1980	1955	
1. Food.....	434	502	508	426	490	918	604	918	11.3	9.3	187	
2. Tobacco and alcoholic beverages.....	26	24	25	34	32	87	52	87	0.7	0.9	271	
3. Clothing, personal furnishings, textile and leather materials.....	497	434	499	506	523	700	1,062	203	12.1	10.8	203	
3.1 Clothing.....	(88)	(81)	(90)	(93)	(88)	(139)	(231)	263	(2.0)	(2.3)	263	
3.2 Semi-manufacturing.....	(268)	(233)	(264)	(288)	(305)	(393)	(587)	192	(7.1)	(5.9)	192	
3.3 Raw materials.....	(120)	(100)	(120)	(102)	(107)	(131)	(177)	165	(2.5)	(1.8)	165	
3.4 Furs.....	(21)	(19)	(25)	(23)	(37)	(67)	(67)	291	(0.5)	(0.7)	291	
4. Furniture, appliances and household electronic equipment, incl. components.....	158	133	151	140	131	191	375	286	3.0	3.8	286	
5. Misc. manufactured consumer goods.....	318	341	377	287	345	497	991	287	8.0	10.0	287	
6. Autos, trucks and parts.....	340	276	389	302	348	365	669	192	8.1	6.8	192	
7. Machinery and equipment.....	976	911	1,006	899	874	1,329	2,731	312	20.2	27.7	312	
8. Aircraft and engines.....	158	115	172	144	141	178	204	145	3.3	2.1	145	
9. Materials for structures and misc. cap. goods.....	258	239	286	194	215	283	405	188	5.0	4.1	188	
10. Coal.....	144	111	114	148	128	95	240	188	3.0	2.4	188	
11. Petroleum and products.....	358	345	374	344	353	325	527	149	8.2	5.3	149	
12. Selected basic chemicals.....	165	162	197	150	178	296	660	371	4.1	6.7	371	
13. Misc. unassigned industrial materials.....	507	458	547	427	416	596	1,018	245	9.6	10.3	245	
14. Special items.....	44	42	66	41	61	70	100	163	1.4	1.0	163	
15. Deflation adjustment.....	—	—	—	+35	+84	—	—	—	—	—	—	
16. Total merchandise imports.....	4,383	4,093	4,711	4,077	4,319	5,577	9,987	231	100.0	100.0	231	
17. Gross National Products (\$ billions).....	24.8	24.3	26.8	20.4	21.6	32.4	61.8	286	—	—	286	
18. Merchandise import as % of G.N.P.....	16.7	16.8	17.6	20.0	20.0	17.2	16.1	—	—	—	—	
19. Alternative petroleum import Case A.....	358	345	374	344	353	324	327	—	—	—	—	
20. Alternative petroleum import Case B.....	358	345	374	344	353	422	724	—	—	—	—	
Alternative totals merchandise imports. Adjusted for alternative petroleum imports.	—	—	—	—	—	—	—	—	—	—	—	
21. Case A.....	4,383	4,093	4,711	4,077	4,319	5,577	9,787	—	—	—	—	
22. Case B.....	4,383	4,093	4,711	4,077	4,319	5,674	10,184	—	—	—	—	

NOTES: Line 3.1: Clothing includes estimated tourist purchases.

Line 3.2: Intermediate goods includes textile yarns and piece goods, miscellaneous textile products, unmanufactured leather products and dyeing and tanning materials.

Line 3.3: Raw materials includes textile raw materials and hides and skins.

Lines 6 and 8: A part of these imports should be allocated to imports of machinery and equipment.

Lines 11 and 16, 19, 20, 21, 22: The imports of petroleum and products in the main body of the table are based on the assumption regarding imports set out in *Canadian Energy Prospects*; this study assumed a sharing of the Quebec market for crude petroleum, among imports and Canadian crude. Since there is wide variation in the judgments of the trade on this point, alternative estimates of petroleum imports and total merchandise imports have been included in the table. Case A assuming that imported crude oil will supply Atlantic but not Quebec refineries and Case B assuming that imported crude will completely serve the Atlantic and Quebec refineries.

SOURCE: See the subsequent sections of this chapter and Appendix C.

Table 33

## SUMMARY OF PROSPECTS, CANADIAN IMPORTS OF GOODS AND SERVICES

Item	Actual in current \$ (\$ millions)					Actual in (1949) constant \$		Prospects in (1949) constant \$		Prospects in 1955 \$ 1980
	1929	1950	1953	1955		1953	1955	1965	1980	
Merchandise imports, unadjusted <sup>a</sup> .....	1,271 <sup>b</sup>	3,174	4,383	4,711		4,077	4,319	5,577	9,987	10,896
Adjustment of merchandise imports .....	0	— 45	—173	—171		—161	—158	—200	—300	—327
Merchandise imports, adjusted .....	1,271	3,129	4,210	4,540		3,916	4,161	5,377	9,687	10,569
Invisibles or Services										
Freight and shipping .....	130	301	374	408		285	298	360	581	795
Tourist and travel .....	108	226	365	449		340	414	575	1,120	1,214
Interest and dividends .....	322	475	404	477		366	419	712	1,159	1,319
Other current debits .....	113	381	471	540		371	415	566	956	1,247
Total invisibles .....	673	1,383	1,614	1,874		1,362	1,546	2,213	3,815	4,575
Total imports of goods and services .....	1,944	4,512	5,824	6,414		5,278	5,707	7,590	13,502	15,144
G.N.P. ....	6,166	18,203	24,473	26,769		20,332	21,573	32,350	61,750	76,138
Imports of goods and services as % of G.N.P.	31.5	24.8	23.8	24.0		26.0	26.5	23.5	21.9	19.9

<sup>a</sup>Merchandise imports, per *Trade of Canada*.<sup>b</sup>The value of the merchandise imports as reported in *Trade of Canada* was adjusted to correct for overvaluation of imports of alcoholic beverages from the United Kingdom which existed until 1935.

GENERAL NOTE: The prospects for merchandise imports are based on the assumption that the Quebec area market for crude petroleum will be shared between imports and Canadian sources in 1965 and 1980. Alternatively, if the Quebec refineries are served completely by imported crude in 1980, the total merchandise imports would be \$10,184 million (1949 prices) in that year and the total of imports of goods and services would be \$13,702 million, in 1949 prices and \$15,358 million in 1955 prices. To take the other extreme alternative, if Quebec refineries are served completely by Canadian crude in 1980, the total merchandise imports would be \$9,787 million (1949 prices) in that year and the total imports of goods and services would be \$13,305 million in 1949 prices and \$14,925 million in 1955 prices.

## **II. Foods**

For a long time food items have been a substantial part of Canada's merchandise imports. It is our expectation that the growth and characteristics of such imports will be similar in the future to what they have been in the past. Historically, the bulk of Canada's imports of food have consisted of such tropical and semi-tropical products as citrus fruits, bananas, nuts, sugar, coffee, tea and cocoa. For only a small proportion of these items are there close domestic substitutes in Canadian production, beet sugar being the most important example. In addition Canada imports some fresh fruits and vegetables of a kind grown in Canada, but mainly at times of the year when they are not in season from domestic sources; also Canada imports some prepared fruit and vegetables in competition with domestic sources of supply, and comparatively small amounts of fish, meat and milk products. The long-run trend has been for imports of foods to grow somewhat less rapidly than the expenditure on food by Canadian consumers; also, imports of food have become progressively smaller parts of Canada's total merchandise imports. The judgment of this study is that the imports of food will continue to grow somewhat less rapidly than either G.N.E. or personal expenditure on food; the tropical and semi-tropical items should continue to dominate the list.

In summary form the estimates of prospective Canadian imports of foods were set out in Table 32 and are set out in somewhat greater detail in Table 34. The sources of data and the specific assumptions underlying the estimates have been placed in Appendix C; what follows here is a brief commentary on the past trends, the main arguments involved in the statement of prospects and the possibilities of adjustment in imports of food under various circumstances.

It should not be too surprising that imports of foods have grown less rapidly than total expenditure on foods at retail in the past. First, transportation, manufacturing and marketing activities which enter between the import values and the retail prices appear to have increased for imported food products in much the same way as they have for domestically produced products. Second, Canada's food imports consist of a quite wide variety of items ranging from basic staples to a variety of more or less expensive kinds of food. For example, dried fruit, sugar and many kinds of nuts are basic staples for which there either has been very little increase or has been a decrease in the volume of per capita consumption during the last three decades. To some extent, beverages like tea, coffee and cocoa should also be looked upon as staple items, for which the over-all consumption would hardly be expected to increase as rapidly as income. On the other hand imports of citrus fruits, off season fresh fruits and vegetables, fancy fish products and fancy nuts and cheese might reasonably be expected to increase in consumption somewhat more rapidly than increases in income, partly because of shift in tastes in these directions. Third, certain segments of Canada's agricultural industry which supply the domestic market and a fairly wide variety of manufacturers of food products receive and, to some extent, use a significant degree of protec-

tion through the tariff and other means. It appears that Canadian commercial policy acts as a limitation on increases on imports of food products.

The prospects for Canada's imports of food have been examined by considering the possible total consumption of various items and then the sharing of the Canadian market between domestic and imported sources of supply. The basic starting point is an expectation that per capita consumer expenditure will increase by approximately 70% between 1955 and 1980 and that expenditure on food (at retail) will increase by only a slightly smaller degree. As food processing and marketing activities are expected to grow somewhat more rapidly than the retail expenditure on food, the over-all value of food supplied by Canadian farms or imported would be expected to increase less rapidly than per capita personal expenditure on food. The main source of information on the demand for food is the study of Canadian agriculture prepared for the Commission, but it provides only general guidance to appraisal of the prospective imports, as it concentrates, quite rightly, on the demand for food products supplied from Canadian sources.<sup>2</sup> Regarding the demand for food the general tenor of the agricultural study is an expectation that the volume of food consumption per capita cannot be expected to increase, but that a significant shift in consumption towards the more expensive forms of food, such as meat and fruits, is expected to take place; for example, the per capita consumption of fruit is expected to be 132% of the 1951-55 volume by 1980; of vegetable, to be 107% and of oils and fats, to be 121%.

Of the fruits and vegetables, the types of consumption which have increased most rapidly in the past have been the imported items; these are incidentally the more expensive items, including such goods as off-season fresh fruits and vegetables. It seems reasonable therefore that the imported elements of the fruit and vegetable consumption might be expected to increase somewhat more rapidly than the over-all domestic consumption. In the projection of food imports it has been assumed that the consumption of citrus fruits and fruit juices and syrups will increase by about 50% on a per capita basis and that imports will increase correspondingly. It has been assumed that imports of other fresh fruits and canned fruits and vegetables will increase by about 40% between 1953 and 1980. The per capita consumption of dried fruits is expected to decline by about 18% between 1953 and 1980. For some time the per capita consumption of nuts has been increasing and these commodities are mainly imported items.

Canadian and American data suggest that the future per capita consumption of sugar will remain about constant at the present level. As the domestic sugar beet industry appears to be having some difficulties in expanding its share of the market, even with the comparatively high existing level of protection, it seems unlikely that they will supply a larger share of the total market in the future. Thus it has been assumed that the per capita imports of sugar products in the future will be the same as in recent years.

<sup>2</sup>W. M. Drummond and W. Mackenzie: *Progress and Prospects of Canadian Agriculture*, Ottawa, 1957.

Examination of Canadian and American data on the per capita consumption of coffee and tea suggests that the over-all consumption measured by cups of beverage might be expected to increase by about 15% between 1953 and 1980. The data also suggest that the proportion accounted for by coffee in Canada may be expected to increase fairly rapidly; our assumption is for that proportion to be 70% by 1980. These assumptions imply that imports of coffee will increase by about 50% per capita while imports of tea will decrease by about 33% per capita between 1953 and 1980. It has been assumed that small increases will take place in the per capita imports of cocoa and decrease in imports of grain and grain products and fish, and that the imports of milk products and miscellaneous items will be about the same on a per capita basis as they were in 1953.

The last sentence raises some very difficult issues in appraising the prospective Canadian imports of food products. While Canada appears still to have some comparative advantage in the production of meat and fish products, for dairy products it is quite clear that Canadian prices exceed world market prices at the present time.<sup>3</sup> This is just the latest stage in a very long-run development in Canada by which Canada has shifted from being a significant exporter of dairy products to world markets to a position of teetering on the brink of substantial imports. The present disparity between Canadian and world prices for butter and cheese could not be sustained without the tariff and other special measures to restrict the importation of such products into Canada. These matters are discussed in the tariff study prepared for the Commission.<sup>4</sup> Our terms of reference are to project the imports under the assumptions of continuation of the existing commercial policy; under these conditions it seems reasonable to expect a comparatively small increase in Canadian imports of dairy products per capita. A similar point arises for a fairly long list of manufactured food products, in which Canadian manufacturing operations are protected and the Canadian price exceeds the world market price for the commodities. Assuming the continuation of the existing commercial policy and in the light of prospective improvements in the competitive cost position of Canadian manufacturers as the scale of the Canadian market increases, it seems reasonable to expect that the import share of the Canadian market for various manufactured food products will not increase from the present low levels; indeed the import share may decrease moderately.

The indications are that Canadian imports of food products will increase from about \$425 million in 1953 to a little less than \$600 million by 1965 and approximately \$900 million by 1980. This is a projection of a little more than a doubling in Canadian imports of food, all measurements being in 1949 constant dollars, compared with about a tripling in G.N.E. between 1953 and 1980.

<sup>3</sup>Even for some meat products, there are signs that substantial imports into Canada might take place in the absence of restrictions on such imports.

<sup>4</sup>J. H. Young, *Canadian Commercial Policy*, Ottawa, 1957.

Before leaving the imports of food it may be useful to point out some of the ways in which the imports of food might be expected to adjust to circumstances other than those which underlie the above forecasts. Both in the long-run and in the face of short-run balance of payments fluctuations, it appears that there is a fairly considerable capacity to adjust the level of Canada's food imports. For quite a number of the food items there are not close domestic substitutes in Canadian production and the full impact of adjustment of imports must fall on consumption or (in the very short-run) on inventories. For some of these staple items like coffee, tea or cocoa, the adjustments to fluctuations in income would be comparatively small. However, there are quite a number of items among Canada's food imports for which the income elasticity of demand appears to be quite high, including citrus fruits and off-season fruits and vegetables. Further, for quite a number of imported food items there are fairly close domestic substitutes in production so that increases or decreases of Canadian supplies should be added to changes in levels of consumption as a means of curtailing or expanding imports. This is true for prepared fruits and vegetables, to some extent for sugar, and for a fairly wide range of grain products, fish, meat and milk products, oil seeds and various food processing activities in Canada.

Table 34

## IMPORT PROSPECTS OF FOOD PRODUCTS

*(value in millions of constant 1949 dollars unless otherwise noted)*

Item	Actual		Projections	
	1953	1955	1965	1980
Fruits				
Citrus fruit, fresh .....	31	30	48	83
Other fresh fruit .....	33	35	51	83
Dried fruit .....	11	12	13	16
Canned fruit .....	18	19	27	45
Juices and syrups .....	16	15	26	46
Total Fruits .....	109	111	165	273
Nuts .....	26	26	39	64
Vegetables .....	47	54	72	117
Sugar .....	77	90	101	138
Coffee .....	33	32	52	88
Tea .....	23	22	25	28
Cocoa .....	14	19	19	27
Grains and products .....	30	48	37	45
Fish .....	8	12	10	12
Meats .....	6	10	8	12
Milk products .....	3	8	5	6
Miscellaneous .....	51	66	72	108
Total .....	426	490	605	918
G.N.E. (billions of 1949 dollars) .....	20.3	21.6	32.4	61.8
Total food imports as % of G.N.E. ....	2.09	2.27	1.87	1.49

### III. Tobacco Products and Alcoholic Beverages

#### (a) Tobacco Products

This section will deal with the prospects for imports of tobacco products and alcoholic beverages, in that order. Those imports of tobacco products which enter explicitly into Canada's trade statistics amount to about \$5 million a year at present, and represent only a minor part of the total Canadian consumption of tobacco products. However, even today there is a fairly sizable flow of tobacco products into Canada from the United States which do not enter through ordinary commercial channels; these items will be omitted. The recorded Canadian imports of tobacco products consist mainly of raw leaf for the manufacture of cigars, finished cigars, a small volume of manufactured cigarettes (mainly for consumption in Newfoundland), and small amounts of other raw leaf and cut tobacco, including some high quality pipe tobacco imported from the United Kingdom.<sup>5</sup> The present situation differs considerably from that which existed in the early 1920's, when a comparatively large proportion of the Canadian tobacco consumption was based on imported leaf. However, Canadian manufactures have more or less continuously accounted for the great bulk of manufacturing operations on those tobacco products sold in Canada.

The growth in Canadian consumption of tobacco products has been discussed in the study of personal expenditure on consumer goods and services prepared for the Commission; the estimates of prospective imports of tobacco products have been substantially based on the consumption study. It was argued that fairly modest increases in per capita consumption of tobacco products in Canada might be expected, with the form of consumption continuing to shift toward manufactured cigarettes. Regarding imports, the general judgment is that the import share of the Canadian market for various tobacco products and for raw leaf will continue at their present low levels. There is no scarcity of good land for the production of a high quality leaf tobacco in Canada. Canada is a comparatively cheap source of leaf tobacco; thus imports of leaf are not expected to replace domestic supplies. There will undoubtedly be some continued importation of cigars and of leaf for the manufacture of cigars and it has been assumed that such imports will increase proportionately with the cigar consumption in Canada. Canadian manufactures of cigars, cigarettes and cut tobacco products have some margin of tariff protection; though, except with respect to cut tobacco, only a part of the protection is now used.<sup>6</sup> There are considerable economies of larger scale production still

<sup>5</sup>It is estimated that imports of manufactured cigarettes through commercial channels amounted to less than 1.5% of the Canadian market for cigarettes in 1955, and that imports of cut tobacco amounted to less than 1% of the Canadian market.

<sup>6</sup>J. H. Young, *op. cit.* In 1955, the Canadian manufacturers' price, net of excise taxes and duties and sales taxes, exceeded the American manufacturers' price, net of similar taxes by less than 3% for cigars, 9% for cigarettes, but by approximately 40% for cut tobacco. The tariff protection of the Canadian manufacturers was estimated at about 3¢ a pack of cigarettes, and about 40% for pipe and cigarette tobacco.

open to Canadian manufactures of tobacco products and it seems reasonable to expect some improvement in the competitive position of these manufactures relative to foreign sources of supply in the future. Further, new firms with new plants are currently entering the Canadian market for tobacco products; this suggests that manufacturing the products in Canada is a better alternative than importing them through commercial channels. Assuming the present import duties, and considering the expected improvement in the competitive position of Canadian tobacco manufacturing operations, it seems unlikely that the import share of the Canadian market for manufactured tobacco products would increase substantially. The rough working assumption of this study is that the import shares for each type of product will remain roughly at the same levels in the next 25 years as they were in 1955.

The prospects for imports of tobacco products are summarized in Table 35, and the detailed sources and judgments are set out in Appendix C.

#### (b) *Alcoholic Beverages*

Imports of alcoholic beverages into Canada amounted to a little less than \$30 million in 1953 (measured in 1949 prices) and to about \$27 million in 1955. This is a comparatively minor part of the total Canadian imports and a small part of total Canadian consumption of alcoholic beverages. The imports consist mainly of spirits, of which Scotch whisky is the most important but not the only item; also comparatively small amounts of wine are imported into Canada. Imports of alcoholic beverages have declined considerably during the last three decades compared with total imports and compared with the consumption of alcoholic beverages in Canada. This is primarily due to a change in Canadian drinking habits from imported to domestically produced spirits. In turn this is partly attributable to the higher retail price for imported than for comparable Canadian spirits. Further, there has been a surprisingly small increase in the per capita Canadian consumption of wine and in the imports of wine. This is partly because the great mass of Canadians have not developed a taste for drinking wines and partly because imported wines are not given particularly favourable treatment as regards price and listings by provincial liquor control authorities.

Estimates of the prospective levels of consumption of alcoholic beverages in Canada have been set out in the study of consumer expenditure prepared for the Commission. Broadly speaking it is expected that the per capita consumption of alcoholic beverages will increase at a somewhat slower rate than per capita income. It appears likely that the more expensive types of alcoholic beverages such as imported spirits, and the high quality imported wines might increase in consumption somewhat more rapidly than the average for all alcoholic beverages. Thus it has been assumed that per capita Canadian consumption of spirits will increase by about 70% between 1953 and 1980 but that the share of imports in the market will continue to decline. Similarly it has been assumed that per capita consumption of wine will increase by a little more than one-third; however, a small increase has been assumed in

the proportion of the Canadian wine market supplied by imported sources of supply. The expected levels of the imports of wine and spirits under these assumptions are set out in Table 35.

Table 35

## IMPORT PROSPECTS OF TOBACCO PRODUCTS AND ALCOHOLIC BEVERAGES

*(millions of constant 1949 dollars)*

	Actual		Projections	
	1953	1955	1965	1980
Tobacco products.....	5	5	7	11
Alcoholic beverages				
Wine.....	4	4	7	13
Spirits.....	25	23	38	63
Total alcoholic beverages.....	29	27	45	76
Total tobacco and alcoholic beverages.....	34	32	52	87
G.N.E. (billions of dollars).....	20.4	21.5	32.4	61.8
Total imports of tobacco and alcoholic beverages as % of G.N.E.....	0.17	0.16	0.16	0.14

SOURCE: See Appendix C.

### IV. Textiles, Clothing, Leather and Fur Products

This group consists of imports of clothing and personal furnishings and materials for such uses, together with imports of textile products for industrial use. In Chapters 2 and 3 it was shown that the trend has been for this class of import to decrease relative to total imports, relative to G.N.E. and to the total domestic expenditure on clothing and personal furnishings. It is our judgment that these relative declines will continue.

The general procedure for assessing the prospects for imports of clothing, personal furnishings and so on, consists of projecting the 1953 value of imports of various items (measured in 1949 prices) on the basis of indexes formed by analysis of the Canadian consumption and production prospects. The consumption prospects have been examined in the study of personal expenditure on goods and services, prepared for the Commission. The general judgment expressed there was that a fairly rapid increase in Canadian expenditure on clothing and personal furnishings would take place, though a modest decrease is expected in the proportion of consumer expenditure devoted to these purposes. In this respect our assumptions correspond with those expressed in the study of The Canadian Primary Textiles Industry, prepared for the Commission; that study suggested that Canadian consumption of textile fibres may reach between 235% and 270% of 1952-53 levels, by 1980. In the consumption study, judgments were also expressed about the form of the textile consumption, the trends suggesting a rapid increase in per capita consumption of synthetic and mixed textiles, a slight increase in per capita consumption of cotton products, and a continued decrease in per capita consumption of woollens.

One of the most difficult steps in appraising the prospective imports of textiles is speculation about the prospective share of the Canadian market for the various products which will be met by imports. The present position is that imports, mainly from the United States, account for about 10% of Canadian expenditure on clothing (when the estimated tourist expenditures on clothing are included), that imports account for 45% to 47% by yardage and 30% by weight of the Canadian market for cotton textiles, 40% by yardage and 23% by weight of the Canadian market for woollen fabrics, and 25% by yardage and 14% by weight of the Canadian market for synthetic fabrics. These imports come in despite significant levels of Canadian tariffs, particularly for synthetic fabrics. Imported yarns capture much smaller proportions of the Canadian market than do imported fabrics. The import shares of the Canadian market are smaller for footwear than for textile fabrics, even after allowance is made for tourist imports.

The import shares of the Canadian market for clothing, manufactured textiles and footwear have been much higher in the last two or three years than they were in the late 1930's and the immediate postwar years; however, in most cases the import shares are smaller than they were in the late 1920's. It is quite clear that the import share of the Canadian market for these items was abnormally low between the end of the war and 1950, due to world scarcities, special Canadian import restrictions and so on; it follows that at least some part of the recent increases in imports are a return to a more normal competitive world trading position. Having said this, it must be confessed that we do not know whether the import shares during the last few years represent (what the economist calls) a long-run equilibrium position. On the one hand, a typical short-run reaction to a sharp deterioration in the competitive position of Canadian industry would be continued Canadian production at reduced prices and profits, which in the long-run would be followed by some further reductions of Canadian output and the Canadian share of the market. On the other hand, the rate of capital inflow and exceptionally high rate of increase in economic activity in Canada in recent years has imposed abnormally heavy competitive disadvantages on the Canadian textile and clothing trades, disadvantages which would not be expected to continue indefinitely. No clear consensus on these matters appears to exist in the industry itself. The authors of the textile study questioned a group of firms, among other things, on the prospective market shares. They report as follows:

"Members of the Canadian industry are agreed that population and income growth will bring an expanding textile market in Canada over the long run. But our questions elicited a strong undercurrent of pessimism regarding the ability of the industry to maintain, let alone enlarge, its share of the market. This pessimism stems from the recently increased intensity of import competition, which may expect to become considerably more severe with mounting pressure from Asia. At the same time, most members of the industry, as a consequence of their present problems, are

much more preoccupied with short-term business prospects than with the long-term outlook, and few seem to have attempted to develop concrete long-term appraisals.”<sup>7</sup>

Further, in setting out the prospects for Canadian textile production, the authors of that study assume that the best the industry will do is hold its present share of the market, approximately 75%, the alternative basis of calculation being a decline in the domestic industry's share to 65% of the market by 1980.

Our projections of imports of clothing, personal furnishings and materials for such uses differ in certain minor respects from the judgments expressed in the study of Canada's primary textiles industry. First, our calculations were made in some detail, taking account of the prospective shift of clothing and footwear consumption toward synthetic materials for which the import shares of the Canadian market are lower than the average for the group. Second, a comparatively minor increase has been assumed in the import share of the Canadian market for cotton and for woollens, with no change assumed for synthetics. Increased scale of Canadian production, together with rationalization of parts of the industry, should provide significant improvements in the competitive position of Canadian manufacturers. On the other hand, the high general level of productivity increases and the increasing relative scarcity of labour on the North American continent will work against the Canadian textile and shoe-manufacturing industries in competition with overseas sources, particularly where style considerations do not play a significant role.

It has been our assumption that imports of clothing, including those entering under tourist privileges will be about 250% of 1953 levels by 1980, primarily because bargains will continue to exist in the United States. Imports of cottons and manufactures are expected to double between these years, with imports of raw materials increasing a little less rapidly than for manufactured goods. Imports of wool and woollen manufactures are expected to increase by roughly 40%, while imports of synthetics approximately triple. No significant increase is expected in the imports of flax, hemp, and jute products, and binder twine and cordage, taken together, mainly because of the competition from other materials. Imports of hides and skins are expected to increase by only 50%, partly because the growth in the production of meat in Canada will (incidentally) produce a rather rapid increase in the supply of hides and skins, and partly because some substitution of synthetic materials for hides and skins is expected. Imports of leather products have been assumed to double. Imports of furs have been assumed to reach about 290% of 1953 levels by 1980, mainly because fur and fur-trimmed clothing will probably continue to be an item of high prestige value in Canada, with rapid increases in expenditure on such items and imports of fur products. The prospects are summarized in

<sup>7</sup>*The Canadian Primary Textiles Industry*, A study prepared for the Commission by the National Industrial Conference Board (Canadian Office), Ottawa, 1957.

Table 36. Roughly speaking, imports for the group are expected to reach 210% of 1953 levels by 1980, amounting to approximately \$1,000 million (1949 dollars) in that year.

The prospective growth and the characteristics of Canada's imports of textiles, clothing and personal furnishings has important implications for the geographical source of Canadian trade. The relative decline in imports of woollen manufactures will probably fall most heavily on items imported from the United Kingdom and on raw wool imported from Australia. The most rapidly growing items, such as clothing and synthetic textiles, are derived predominantly from the United States. The growth in the Canadian market for furs presents an opportunity mainly to the Soviet Union and to those areas which produce certain types of lamb products. The relative decline in imports of flax and hemp will fall predominantly on the Asiatic countries bordering on the Pacific.

As for many other groups of imports one of the most striking features of Canada's position is the closeness of possible substitution between domestic and imported sources of supply for the textile, clothing and personal furnishings group. Except for raw cotton, raw wool, hemp and jute there are close domestic substitutes for almost every type of clothing and textile product imported. In the past, variations in Canada's general international economic fortunes have been an important influence on the position of the textile industry. It is not unreasonable to expect this to continue. In particular, a less rapid increase in the growth of the Canadian economy would probably be accompanied by an increase in the domestic industry's share of the Canadian market.

Table 36

## IMPORT PROSPECTS OF CLOTHING, TEXTILES AND MATERIALS FOR SUCH USES

	Imports—1953		Index of imports		Projected imports	
	Current dollars	Constant (1949) dollars	1965	1980	1965	1980
Clothing.....	89.0	80.8	151	253	122	204
Cotton, raw.....	57.1	52.6	135	190	70	100
Cotton, manufactures.....	82.0	92.3	139	210	129	194
Wool, raw.....	42.7	30.2	106	113	32	34
Wool, manufactures.....	61.1	62.9	127	170	80	107
Synthetic, raw.....	13.7	12.0	148	240	18	29
Synthetic, manufactures.....	27.7	30.8	166	314	51	97
Flax, hemp, jute.....	21.9	33.5	100	100	34	34
Binder twine, cordage and grass.....	5.5	5.5	100	100	6	6
Feathers, kapok, rags and waste.....	16.3	15.1	134	193	20	29
Oilcloths.....	13.6	16.5	159	282	26	47
Hides and skins.....	6.9	9.1	121	159	11	15
Leather, unmanufactured.....	9.2	10.8	147	238	16	26
Leather, manufactures.....	10.0	11.8	142	220	17	26
Furs.....	21.0	23.3	160	208	37	67
Dyeing and tanning materials.....	11.2	10.1	138	200	14	20
Miscellaneous items.....	11.4	11.6	168	255	20	30
Total.....	496.5	505.6	138	210	700	1,062
G.N.E.....	24,473.0	20,353.0	159	303	32,350	61,750
Total imports of group as % of G.N.E.....	2.03	2.48	—	—	2.16	1.72

SOURCE: See Appendix C.

### *V. Furniture, Household Appliances and Household Radio and Television Equipment*

Imports of furniture and household appliances, together with parts for the manufacture of such commodities, are a comparatively small part of the total Canadian merchandise imports at the present time, but the value of the group has increased rapidly during the last three decades. During 1955, this group of imports amounted to about \$150 million in current prices, and about \$130 million in 1949 prices. Currently, the largest items in the group are refrigerators and parts, and parts for the manufacture of radio and television sets in Canada. These imports are large both because refrigeration and electronic equipment account for a large part of the Canadian market for household appliances and because the sales of such items have a comparatively high import content. For other items, such as vacuum cleaners, sewing machines and automatic laundry equipment, the import share of the Canadian market is also quite large, but the related imports are comparatively small in value because of the limited Canadian expenditure on such goods. Imports of other items, such as stoves, miscellaneous cooking equipment, flat irons, conventional washing machines and the smaller heating appliances, are also comparatively small because the Canadian market for such items is supplied mainly from Canadian sources. Finally, imports account for a very small proportion of the total Canadian market for furniture, amounting to about 3% for wooden furniture and approximately 10% for metal furniture in 1954.

The prospects for imports of furniture and household appliances depend on the growth in the Canadian expenditure on such items and on the division of the Canadian market among domestic and foreign sources of supply, including imports of parts and components. In the study of personal expenditure undertaken for the Commission, it was argued that the proportion of personal expenditure devoted to household appliances (including household radio and television equipment) would probably increase in the future.<sup>8</sup> Considering this change together with the expected growth in total personal expenditure, it was suggested that the Canadian market for household appliances might increase from about \$430 million in 1955 to about \$1,580 million in 1980, both measured in 1949 prices. It appeared unlikely that the proportion of expenditure devoted to furniture would alter substantially from present levels; even so, the prospect is that the Canadian market for furniture would increase from about \$240 million in 1955 to about \$685 million in 1980, again in 1949 prices. No attempt has been made to forecast the demand for particular types of household appliances or furniture, partly because a very limited reliability could be placed on estimates put together rather quickly, and partly because past experience provides little specific guidance on the prospects for the (almost inevitable) flow of new products.

Forecasting the import share of the Canadian market for furniture, appliances and electronic equipment is an even more hazardous venture than

setting out the prospects for the consumer expenditure on such items; yet it is a venture of considerable interest and one on which a number of judgments were expressed to the Commission. The study of *The Canadian Electrical Manufacturing Industry*, prepared for the Commission has been particularly helpful, as have been a number of briefs presented by companies in the electrical manufacturing industry.<sup>9</sup> Household appliances are an important instance where the prospective scale of the Canadian market, economies of large-scale production, changes in methods of production, and rapid changes in the types of products come together as determinants of the division of the market between domestic and foreign sources of supply.

Analysis of the present situation and of the historical record provides the main basis for speculation about the future sharing of the Canadian market for appliances. In 1955 imports of finished appliances and parts amounted to about 31% of Canadian personal expenditure on such equipment, valued at retail in current dollars. In constant dollars, the ratio was approximately 29%. Measuring the import share of the Canadian market in this way, imports have accounted for higher proportions of the market in recent years than in either the late 1920's or before World War II, and much higher percentages than between 1948 and 1950. Before considering the present situation or the trends in any detail, it is appropriate to ask whether the recent experience as regards imports of this group is unusual or abnormal. It is our belief, based on arguments in Chapter 3, that the relative role of imports in the Canadian appliance market has not been markedly abnormal in recent years, that the increases in import shares between 1950 and 1955 mainly represent a return to normal trading relationships. However, both the exceptionally high rate of growth in investment activity at the present time and the extremely rapid rate of adoption of television sets during the last two years have tended to make the over-all role of imports of appliances and parts somewhat larger relative to the aggregate market for such appliances, than they would ordinarily be.

Let us examine briefly the present position as regards sharing of the Canadian market for various kinds of appliances. Generally speaking the imports of household appliances and electronic equipment and parts for the manufacture of such equipment come in over a tariff wall. Also, generally speaking, for the major appliances the tariff protection is fully used. However, there are some instances in which Canadian prices, net of excise and sales taxes, exceed the United States price (net of such taxes) by less than the amount of the tariff, such items as conventional washing machines, sewing machines, electric flat irons and vacuum cleaners. In a few instances the Canadian manufacturers

<sup>9</sup>Clarence L. Barber, *The Canadian Electrical Manufacturing Industry*, Ottawa, 1957. Among the briefs, special mention should be made of the one presented by the Canadian General Electric Company and the hearings at which Mr. Goss, the president of that company appeared. This brief and discussion of it pointed up very sharply the question of the scale of the Canadian market for electrical appliances and the competitive position of Canadian manufacturers, *vis-a-vis* foreign sources of supply.

appear to use more than the formal tariff on imports, the outstanding example being in electric ranges.<sup>10</sup> Since Canadian prices of appliances are higher than American prices (both net of commodity taxes), in almost every instance there is a general presumption that Canadian costs of production for almost every type of appliance exceed those in the United States, despite the lower wage rates in Canada. The import shares of the Canadian market, and presumably the competitive position of Canadian manufacturers (given the existing tariff), differ widely among various products, imports being high for refrigerators and parts, radio and television parts, automatic laundry equipment, vacuum cleaners and sewing machines, and low for stoves, conventional washing machines, radio and TV sets, miscellaneous cooking equipment, flat irons and most small appliances.

In general the import share of the Canadian market is comparatively small for those appliances or operations in which the typical scale of production unit in North America is also small; the import share is comparatively large for those appliances or operations in which the North American scale of production is usually large. The manufacture of small appliances, assembly operations on some larger appliances and the production of items of less exacting technical standards and complexity are commonly carried on in smaller scale enterprises than are the manufacturing of large appliances and complex but highly standardized parts like small motors. Second, the import share of the Canadian market is typically larger for newer products or products subject to fairly rapid changes in design than it is for older products and for ones which change design less frequently. The production of refrigerators is a more complex operation dealing with newer goods which are subject to rapid changes in product design than is the production of electric stoves; the same argument applies to automatic laundry equipment compared with conventional laundry equipment. It is not surprising to find the import shares of the Canadian market much larger for refrigerators and parts, and for automatic laundry equipment than they have been for electric stoves and conventional laundry equipment. (Of course, the provisions of the codes of electrical standards in Canada have been a peculiarly severe limitation on imports of stoves into most provinces.)

Earlier in this section it was pointed out that the aggregate ratio of imports of appliances and parts to personal expenditure on such items in Canada has been higher in recent years than it was in the late 1920's. This over-all position may appear to conflict with the observation that for many types of appliances, imports are now of smaller importance relative to the market, and with the observation that Canadians now manufacture a somewhat broader range of household electrical goods than they did three decades ago. The apparent conflict is to be explained by two factors. First, the mixture of household appliances demanded by Canadians has gradually shifted toward items which have higher than average import content, such items as refrigera-

tors, radio and television sets. Second, while a broader range of electrical goods are now manufactured in Canada, there are many newer products in which Canadian manufacturing is in the early stage of development

It is widely recognized that Canadian costs of production of almost every type of household appliance are higher than those in the United States, and also widely argued that one of the main reasons for these higher costs are the much smaller scale of operation of the typical manufacture of a particular kind of appliance in Canada than in the United States. Canadian scales and methods of operation appear to be typically very much below the minimum efficient scale for most of the major appliances, particularly for refrigerators and electric ranges. For some of the smaller items, the Canadian operation appears to be below but somewhat closer to the optimal scale of operation. A major question concerns the effects of growth and rationalization of Canadian production on the competitive position of Canadian manufacturing in the future. Almost as big a question is the effect of the introduction of new products and new techniques on the Canadian competitive position in the manufacture of household appliances. These matters have been discussed at some length in Appendix C. Our judgment is that the ratio of imports of household appliances and electronic equipment and parts for their manufacture will be smaller in the future than at present, declining from about 29% in 1955 to about 22% by 1980. This judgment implies a reversal of the experience of recent years and a reversal of the trend as judged by comparing recent years with prewar years or with the late 1920's. The judgment is based on the following considerations. The television boom may be expected to slacken off a little, reducing the over-all ratio of imports of appliances, radio equipment and parts compared with domestic consumption. It is expected that the Canadian market for many kinds of appliances will triple and more in the next 25 years; it is our judgment that such a growth, particularly if it is accompanied by some rationalization in the Canadian manufacture of appliances, should provide most of the economies of larger scale production available at present. This would tend to reduce the level of imports compared with final expenditure by Canadians. The package of marketing and transportation activities included in the retail price of appliances is expected to grow more than proportionately to the retail sales, another factor leading toward a somewhat less rapid growth in imports than in the retail sales. On the other side of the ledger it is expected that the past pattern of development of new durable items will be repeated in the future; that is, as new durable items have come into Canadian consumption, the import of the finished article and of parts for Canadian assembly have constituted a very large share of the Canadian sales of the item in the early stage of adoption. Furthermore, it seems likely that the kinds of new durables which will become popular will include many complex items for which imports remain large even after some substantial level of production in Canada is obtained. Finally, while the impact of new technological developments on the optimal scale of production is by no means clear at the present time, at least some of these will

have the effect of increasing the minimum efficient scale of the production unit in manufacturing household appliances. It is the judgment of this study that the influences tending to reduce the over-all import content of Canadian expenditure on appliances and radios will more than offset those tending to expand the import content. In this respect our judgment more or less corresponds with that expressed by Dr. Barber in the study of the Canadian electrical manufacturing industry.

In contrast with household appliances, the long-run trend has been for the import share of the Canadian market for furniture to decline from what were low levels to even lower levels. Evidence presented in the study of Canadian commercial policy indicates that the Canadian prices of wooden furniture are lower absolutely than the prices of such furniture in the United States, when allowance is made for internal commodity taxes in the two countries. Thus, *vis-a-vis* the United States, the existing Canadian tariff on imported furniture is not reflected in Canadian prices. It appears quite clear that the Canadian costs of production of wooden furniture are lower than in the United States. However, as compared with Scandinavia, the Canadian cost of production appears to be relatively high for wooden furniture. Importation of Scandinavian furniture is limited by the tariff, by the transportation costs and by the considerable marketing difficulties of dealing with manufacturers who are in foreign countries several thousand miles distant. For metal furniture, the Canadian competitive position appears to be not as favourable relative to the United States as it is with respect to wooden furniture, but the Canadian prices of such furniture are typically less than the United States prices plus the tariff. Providing that Canadian manufacturers can supply attractive designs at the current level of prices compared with those in the United States and in Scandinavia, it seems unlikely that the import share of the Canadian furniture market would significantly increase; indeed, it is our judgment that some small further decrease in this ratio will take place.

The estimates of imports of furniture, household appliances and household radio and television equipment and parts for such uses have been set out in Table 37. Roughly speaking it is our judgment that such imports will triple between 1955 and 1980, increasing from about \$130 million to about \$380 million, both measurements in constant 1949 prices. This means that the imports of furniture, appliances, radio equipment and parts for such uses, are expected to grow at about the same rate as G.N.E.

Table 37  
IMPORT PROSPECTS OF FURNITURE, APPLIANCES AND HOUSEHOLD RADIO AND TELEVISION EQUIPMENT

Historical experience	Consumer expenditure on			Value of imports of			Imports as % of Canadian expenditure		
	Furniture	Appliances and radio equipment (\$ millions)	Total — furniture and appliances (3)	Furniture	Appliances and radio equipment (\$ millions)	Total — furniture and appliances (6)	Furniture	Appliances and radio equipment % (8)	Total — furniture and appliances (9)
A. Current dollars	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1928	56.3	84.2	140.5	5.1	8.6	13.7	9.1	10.2	9.8
1929	64.7	96.9	161.6	6.6	13.6	20.2	10.2	14.0	12.5
1951	191.9	283.1	475.0	8.5	81.0	89.5	4.4	28.6	18.8
1952	240.1	348.4	588.5	7.7	100.0	107.7	3.2	28.7	18.3
1953	251.9	388.4	640.3	11.8	145.8	157.6	4.7	37.5	24.6
1954	250.9	411.6	662.5	12.9	120.0	132.9	5.1	29.2	20.0
1955	274.0	438.1	712.1	15.4	135.3	150.7	5.6	30.9	21.2
B. Constant (1949) dollars									
1928	51.9	77.6	129.5	—	—	24.5	—	—	18.8
1929	59.8	89.6	149.4	—	—	32.4	—	—	21.8
1951	169.8	249.6	419.4	—	—	79.2	—	—	18.9
1952	207.5	304.2	511.7	—	—	97.4	—	—	19.0
1953	214.7	348.7	563.4	—	—	140.1	—	—	24.9
1954	213.5	384.3	597.8	—	—	117.6	—	—	19.7
1955	236.6	426.2	662.8	—	—	130.5	—	—	19.7
C. Prospects in constant (1949) \$									
1960	288.0	514.5	802.5	14.4	138.9	153.3	5.0	27.0	19.1
1965	351.5	668.8	1,020.3	16.9	173.9	190.8	4.8	26.0	18.7
1970	443.9	906.5	1,350.4	20.9	226.6	247.5	4.7	25.0	18.3
1975	551.1	1,199.0	1,750.1	25.4	287.8	313.2	4.6	24.0	17.9
1980	686.4	1,580.8	2,267.2	27.5	347.8	375.3	4.0	22.0	16.6

Source: Columns (1) and (2): Sections A and B; data made available by the National Income section of D.B.S.

Columns (4), (5) and (6): Section C; see David W. Slater, *Consumption Expenditures in Canada*, Ottawa, 1957.

Columns (7) and (8): Section A; see Appendix A.

Columns (9): Section B; data in Section A, deflated by special price index built up from components of the D.B.S. index of import prices.

Columns (7) and (8): Section C; see text of this chapter and Appendix C.

## VI. Miscellaneous Manufactured Consumer Goods

Canada imports a rather large volume of assorted consumer goods in addition to the items which have already been discussed. These items have been gathered together under the heading of miscellaneous manufactured consumer goods; the content of the group was described in some detail in Chapters 2 and 3 and more precisely in Appendix A. The more important items in the group include books and printed matter, drugs and pharmaceuticals, amusement and sporting goods, musical instruments, cutlery, electroplated ware, clocks and watches, tableware of china, jewellery, assorted tourist purchases, post office parcels and settlers' effects.<sup>11</sup> As was shown earlier this collection of items has become a larger proportion of the total merchandise imports; indeed, imports of the group as a whole have increased somewhat more rapidly than G.N.E. It is our expectation that this trend will continue.

In dealing with the prospects for imports of these goods, in the first instance, only a limited breakdown among the various items was made. Tourist purchases, postal parcels and settlers' effects were separated from the total and each was dealt with. The remainder of the group was projected on the basis of the expected growth in aggregate consumer expenditure in Canada together with some impressions about the growth of imports of these miscellaneous manufactured consumer goods relative to aggregate consumer expenditure.

Consider first the main body of the imports of miscellaneous consumer goods. The group is dominated by a number of items for which Canadian consumption is likely to increase proportionately with, or more than proportionally to consumer expenditure, items such as books and printed matter, drugs and pharmaceuticals, amusement and sporting goods, bicycles, toys and gardening equipment.<sup>12</sup> Despite the growth in the Canadian market, the import share of the Canadian market for many of these goods was larger between 1952 and 1955 than the average between 1926 and 1929 (*e.g.* see Table 14 regarding books and printed matter, drugs and pharmaceutical products and bicycles). It seems unlikely that a very substantial decline in the import shares will take place in the future. This judgment, together with the prospective growth in the market, implies a future trend of increase in the imports of miscellaneous consumer goods more rapid than in total personal expenditure. However, there are a number of items in the group for which Canadian expenditure has increased in the past, and will probably increase in the future, less rapidly than total personal expenditure, including such things as cutlery and china tableware. These items by no means dominate the group. For the group as a whole, our judgment is that the imports will increase as a proportion of consumer expenditure by about 11% between 1953-55 and 1980; that is, from about 1.9% of consumer expenditure to 2.1%,

<sup>11</sup>Some portion of "tools and hand implements" should be included here, but as we do not have an adequate basis for such assignment, the whole group was placed in imports of machinery and equipment.

<sup>12</sup>David W. Slater, *op. cit.*

all figures based on data measured in constant (1949) dollars. Measured in current dollars the proportion increased between the late 1920's and 1953-55 from about 1.43% to about 1.78% of consumer expenditure; measured in constant dollars the increase was from 1.76% to 1.90%. The resulting estimates of imports of the main body of the miscellaneous manufactured consumer goods are set out in Table 38.

Regarding settlers' effects, the forecast of imports has been based on an assumption that net immigration will amount to 75,000 per annum, and that it will take 125,000 a year gross immigration to sustain this figure. It has been assumed that a 25% increase takes place in the value of settlers' effects per immigrant over the next 25 years. For tourist purchases (excluding clothing, furniture and appliances) there are a number of indications that these will increase about as rapidly as aggregate consumer expenditure. Foreign tourism appears to be one of the more important ways in which Canadians spend their increasing incomes. Similarly, the imports of postal parcels may be expected to increase fairly rapidly as these depend upon ease of communication and familiarity of people with market opportunities and persons abroad.

When all of the items are added together the indications are that the imports of the group may almost triple in the next 25 years, thus increasing in about the same degree as G.N.E. In 1949 dollar terms, the expected value of imports for the group in 1980 is \$990 million, compared with \$342 million in 1955.

Table 38

**IMPORT PROSPECTS OF MISCELLANEOUS MANUFACTURED CONSUMER GOODS**  
*(\\$ millions in 1949 prices unless otherwise specified)*

	1928	Actual 1929	1953-55 average	1955	Prospects 1965	1980
Total personal expenditure on consumer goods and services.....	6,068	6,320	13,526	14,300	21,300	41,600
Imports of miscellaneous manufactured consumer goods (excluding postal parcels, tourist purchases and settlers' effects) as percent of total personal expenditure	1.71 <sup>a</sup>	1.80 <sup>a</sup>	1.90 <sup>a</sup>	2.02 <sup>a</sup>	1.98 <sup>a</sup>	2.10 <sup>a</sup>
Value of imports of miscellaneous manufactured consumer goods.....	104	114	257	289	422	874
Settlers' effects.....	—	—	—	22	28	31
Postal parcels.....	—	—	—	15	22	37
Tourist purchases, excluding clothing and footwear, furniture and appliances and automobile parts and accessories.....	—	—	—	17	26	50
Total imports of miscellaneous manufactured consumer goods, including settlers' effects, postal parcels and miscellaneous tourist purchases.....	—	—	314	342	497	991

<sup>a</sup> Percentage.

SOURCE: See Appendix C.

## VII. Autos, Trucks and Parts

It was shown earlier that imports of autos, trucks and parts formed a quite large and historically increasing proportion of Canadian merchandise imports; imports of parts are of much greater value than imports of finished vehicles. It is our expectation that while this group of imports will continue to be very important, they will grow somewhat less rapidly than G.N.P. The judgment is based mainly on the view that the value of vehicle production in Canada will increase less rapidly than G.N.E. in the future.

The prospects have been examined separately for imports of autos, trucks and automobile parts. For the finished automobiles and trucks the basic procedure has been to estimate the Canadian sales and then to arrive at some judgment regarding the division of the market between imported and domestically-produced vehicles. For imports of parts, an estimate was made of the value of Canadian production of vehicles, together with some judgment regarding the proportion consisting of imported components. In this section auto parts includes items so designated in the import statistics of motor vehicles together with imports of automobile and truck engines. A number of other materials and parts are used in the production and servicing of automobiles, items which fall into other sections of trade statistics; such items have not been considered in this section. The limited range of parts dealt with here accounts for the ratio of imported parts to the gross value of vehicle manufacture being less than 35%; if all imported parts and materials were included the ratio would be close to 40%.

As the detailed analysis of prospective imports of autos, trucks and parts are set out in Appendix C, only the general line of argument is set out at this point. First, consider imports of finished automobiles. The expected sales of automobiles in Canada were discussed in the study of consumer expenditure carried out for the Commission.<sup>13</sup> The judgment there expressed was that the level of sales of new automobiles would be 955 ( $\pm 70$ ) thousand in 1980 compared with about 360 thousand in 1953. Imports of automobiles consist of the larger North American-type of vehicles sold by the major companies, together with a substantial part of the sales by the independents, together with imports of European-type cars. The imports of North American-type automobiles now amount to 7% of Canadian automobile sales. Our judgment is that this proportion will decline a little, partly because of an expected decline in the share of the market held by the independents and partly because some small increase is expected in the proportion of the larger automobiles made in Canada. Imports of European cars, mainly small vehicles, amounted to about 5.5% of the Canadian sales of new automobiles in 1955. In the aggregate these have been becoming a smaller proportion of the Canadian markets since 1950. However, there has been a quite different trend for German vehicles than for British, the former having increased in volume of import

<sup>13</sup>*Ibid.* See also *The Canadian Automotive Industry*, a study prepared for the Commission by the Sun Life Assurance Company of Canada, Ottawa, 1957.

quite sharply since 1953. German automobiles have been obtaining larger proportions of the small-car market, rather than displacing North American-type vehicles. Our guess is that the European-type automobile will capture somewhat smaller proportions of the Canadian automobile market in the future, partly because of the limited Canadian acceptance of European-type styling of vehicles and partly because the good North American-type used-automobile will always give the small European vehicle rather tough competition. The net result of these judgments is an expectation that imports of North American-type automobiles may amount to about \$117 million in 1980 compared with \$55 million at the present time (both measured in 1949 constant dollars); it is expected that imports of European-type vehicles may be of the order of \$38 million in 1980 compared with \$17 million in 1955.

Turning now to trucks, the expected volume of Canadian sales has been taken from the study of the automobile industry prepared for the Commission. During the last five years the proportion of Canadian truck sales represented by imports of North American-type trucks has increased considerably, now amounting to about 8.9% of truck sales. It is well known that these imports are predominantly of large and specialized vehicles. In our judgment the imports of North American-type trucks will increase somewhat in the future relative to the total sales of trucks in Canada, partly because it is expected that the larger and specialized trucks will become a greater part of the Canadian market for trucks and partly because it does not seem likely that the Canadian truck market will expand sufficiently to permit any substantial relative increase in Canadian production of heavy vehicles. Generally speaking, in recent times the imports of European-style trucks have not amounted to a large share of the Canadian truck market though for a short time after the devaluation of 1949, imports of British trucks reached substantial levels. More recently, imports of light German trucks have achieved considerable importance. Our estimate of the prospects for imports of trucks is that European-style vehicles will not account for a very much larger share of the Canadian market in the future than they do at the present time. These judgments about imports of trucks imply an increase in the value of imports of North American-type trucks from \$25 million to \$71 million between 1955 and 1980 and an increase from \$1.6 million to \$3.6 million for imports of European trucks over the same period.

Turning now to the probable imports of automobile parts, one of the important requirements is an estimate of the Canadian production of motor vehicles. To obtain this it is necessary to form some idea of the Canadian export of automobiles and trucks in addition to the expectations about Canadian sales and imports of vehicles. It has been assumed that Canadian exports of automobiles will be about 15,000 vehicles a year in the future, not very different from the present level. On the other hand, it has been assumed that the Canadian exports of trucks will increase from about 10,000 vehicles a year in 1960 to 18,000 vehicles a year in 1980. This somewhat more favourable assumption for trucks is based primarily on a view that trucks will be

considered somewhat more essential to the economic development of overseas areas than are passenger automobiles. Putting these export assumptions together with those dealing with Canadian sales and imports, an estimate is derived of the number of vehicles to be produced in Canada. In turn these numbers have been converted into estimates of the value of vehicle production at manufacturers' prices. (The method of conversion to a value basis is set out in Appendix C.) During the last five years, imports of those automobile parts which are being dealt with in this section, have averaged about 32% of the value of automobile production in Canada. These imports include some replacement parts but it seems likely that the bulk of the imports have been for the manufacture of new vehicles in Canada. It seems unlikely that the imports of parts for inclusion in new vehicles have averaged less than 29% of the gross value of Canadian vehicle production. (It should be recalled that the group under discussion does not include all imported automobile components and materials.) In recent years the imports of parts have been much higher than the average for the five-year period, amounting to 35.3% in 1954 and 36.6% in 1955. A part of this increase is due to imports of automatic transmissions but it seems unlikely that this factor alone can explain the higher ratio of imports of parts to vehicle production. It is our understanding that current competitive conditions in the automobile industry have driven the firms toward more economical sources of supply and that this drive has tended to increase the import content of the average vehicle.

It is our judgment that the ratio of imports of parts to the gross value of vehicle production in Canada will be a little smaller in the future than it is at the present time; we have assumed that the ratio falls from about 37% in 1955 to 29% in the other years. Judging by experience in the United States, it seems unlikely that the complete production of automatic transmissions will take place in Canada. The impact of new methods of production is expected to increase the minimum efficient scale of production in many lines of manufacture of automobile parts. One would reasonably expect that the growth in the volume of automobile production in Canada should yield substantial economies of larger scale operations in parts manufacture, except where they are offset by the impact of what is popularly called automation. The ratios of imported parts to the gross value of production which have been here assumed together with the expected value of vehicle output implies a level of imports of parts of about \$430 million in 1980 compared with \$230 million in 1955, both figures in 1949 constant dollars.

No very precise information is available on the prospects for imports of buses. Such imports only amount to about \$4 million at the present time. It has been assumed that this figure will roughly double by 1980.

Table 39

## IMPORT PROSPECTS OF AUTOS, TRUCKS AND PARTS

Group	Unit	Actual 1955	Actual 1965	Prospects 1980
<b>Automobiles</b>				
1. Prospective sales of cars in Canada . . . . .	000	387. <sup>a</sup>	446	954
2. Prospective imports . . . . .	000	48.5	56	102
3. Assumed exports . . . . .	000	11.2	15	15
4. Prospective production in Canada . . . . .	000	375.	405	867
5. Value of prospective imports . . . . .	\$(1949) mills.	61.7	84	155
<b>Trucks</b>				
6. Prospective sales in Canada . . . . .	000	82.	121	200
7. Prospective imports . . . . .	000	9.	12	24
8. Assumed exports . . . . .	000	6.6	12	18
9. Prospective production in Canada . . . . .	000	79.	121	194
10. Value of prospective imports . . . . .	\$(1949) mills.	26.5	39	75
<b>Auto Parts (in the motor vehicle group, <i>Trade of Canada</i>, plus engines)</b>				
11. Prospective value of vehicle production in Canada . . . . .	\$(1949) mills.	632.	737	1,482
12. Assumed ratio of imports of auto parts (as defined above) as % of the value of motor vehicle production . . . . .	%	36.6	32	29
13. Prospective imports of auto parts . . . . .	\$(1949) mills.	231.	236	430
14. Prospective imports of buses . . . . .	\$(1949) mills.	4.	6	9
15. Grand total, prospective imports of autos, trucks and parts . . . . .	\$(1949) mills.	329.5	365	669
16. G.N.E. . . . .	\$(1949) bills.	21.6	32.4	61.8
17. Imports of group as % of G.N.E. . . . .		1.53	1.13	1.08

<sup>a</sup> Estimated from D.B.S., *Canadian Statistical Review*.

### VIII. Machinery and Equipment

Because of the complicated nature and growing importance of imports of machinery and equipment, a considerable discussion of this group was undertaken in Chapters 2 and 3. Turning now to the prospects for this group of imports, it will be useful to recall a few of the points raised earlier. The group, imports of machinery and equipment, has been defined to correspond with the concept of investment in machinery and equipment (as set out in *Public and Private Investment in Canada*).<sup>14</sup> The imports are priced at declared values as in the Canadian trade statistics. As this value is considerably less than market prices which are used to measure investment expenditure on machinery and equipment the imports represent a somewhat smaller proportion of the new investment (valued at market price) than one might expect. It should also be recalled that the import group includes some materials and components which almost certainly are used in investment in machinery and equipment in Canada.

It was argued that imports of machinery and equipment have been a large and increasing proportion of the total Canadian merchandise imports; indeed, they have had a growth somewhat more rapid than that of Canada's G.N.P. The size and the rapid growth of this type of import is to be explained primarily by the sustained high import-content of investment in machinery and equipment in Canada and by the rapid growth of such investment expenditure.

It is the expectation of this study that the past trends will continue; specifically it appears likely that the imports of machinery and equipment will continue to grow more rapidly than Canada's G.N.E. This view is mainly based on an expectation that investment in machinery and equipment will account for a larger fraction of the Canadian G.N.E. in the future than it does at present. In turn, the latter judgment is based very largely on a study of the demand for industrial capital carried out for the Commission as part of the study of output, labour and capital.<sup>15</sup> As part of this study of Canada's imports, considerable attention has been given to the sharing of the Canadian market for machinery and equipment between imported and domestic sources of supply. In general terms the conclusion of the latter exercise is that a relatively minor decrease from the present position is to be expected in the proportion of the Canadian machinery market supplied by imports.

<sup>14</sup>There are three qualifications to this definition. First, while an estimate has been made of that portion of the imports of autos, trucks and parts which flow into investment uses, this group has been omitted from the discussion in this section of the study. Second, some part of the imports of aircraft and parts (including engines) should properly be assigned to the group, imports of machinery and equipment. Because it has not been possible to separate out those imports which flow into military uses, no such assignment has been made; the error on this account is small. Finally, a number of imports of industrial materials which probably flow into investment in machinery and equipment have not been assigned to this import category, for lack of precise information.

<sup>15</sup>Hood and Scott, *op. cit.*, Chap. 6.

*The Size of the Market*

Detailed discussions of sources of information and methods of forecasting have been set out in Appendix C; only the main lines of the argument are set down below. The forecast of the new investment expenditure on machinery and equipment has been primarily based on Mr. Scott's study of the demand for industrial capital. Mr. Scott's procedure was based on studies of capital output ratios and of the stock and depreciation of capital equipment. These studies suggest that a substantial increase will take place in the ratio of capital in the form of machinery and equipment to output in Canada. Largely as a result of this assumption, investment in new machinery and equipment is expected to increase considerably as a ratio to the gross national production. As the coverage of investment in machinery and equipment in Mr. Scott's study was slightly narrower than the concept of public and private investment in new machinery and equipment, Mr. Scott's estimates had to be adjusted in minor respects to suit our purposes. The procedure by which this was done is set out in Appendix C.

Imports of machinery and equipment, particularly of components, are influenced by the Canadian exports of such equipment. While these exports have never been large in proportion to the G.N.P., they do appear to be a little larger now than they were in the late 1920's. The main export items consist of agricultural machinery, electrical apparatus, transportation equipment and some non-agricultural machinery. Views on the prospective exports of such equipment have been expressed in the general study of secondary industry in Canada and in the study of Canada's export prospects, both prepared for the Commission. The consensus is that such exports will be a somewhat smaller ratio compared with G.N.P. in the future than in 1953-55, but it is unlikely that they will be less than 0.50% of G.N.P. in 1980.

*Sharing of the Market*

Analysis of Canadian experience leads us to expect a comparatively small change from the present position in the sharing of the Canadian machinery market between imports and domestic supplies. Mr. Buckley's study of capital formation in Canada between 1896 and 1930, together with comparable information available from 1926 to 1953 provides a very long-run view on this question,<sup>16</sup> the data for selected years being placed in Table 40. For industrial, mining and electrical machinery considered together, the import share of the flow of such equipment at producers' prices in Canada was about 51% in 1953, compared with about 53% in the late 1920's and 55% in 1909-10. For office and store, professional and miscellaneous machinery, and equipment, the import share of the Canadian market in 1953 was 33% compared with 33% in the late 1930's and about 40% in the late 1920's and prior to World War I. The import share of the Canadian market for farm machinery has been somewhat higher in recent years than it was either in the late 1920's

<sup>16</sup>K. A. H. Buckley, *Capital Formation in Canada, 1896-1930*, Toronto, University of Toronto Press, 1955. Roughly comparable data from 1926 to 1945 were accumulated for the study of *Public Investment and Capital Formation*, Ottawa, 1945. The worksheets of the latter study were made available to the Commission, and they have been extended through 1953.

or prior to World War I; this largely reflects the freer flow of farm machinery throughout the whole North American market; an increase in the export share of Canadian production of farm machinery parallels the increase in the import share of the Canadian market.

Other observations on Canada's experience support the view of comparative stability in the proportion of the Canadian machinery market supplied by imports. The value of imports of machinery and equipment developed in the functional classification of imports in Chapter 2, may be compared with private and public investment expenditure and exports of machinery and equipment. Between 1926 and 1929, the ratio of imports to the Canadian market, measured in this way, was 35%; between 1951 and 1955 it was 41.1%, both measurements being in current dollars. The latter figure appears to be slightly larger than normal, due to the very high levels of imports in 1954 and 1955. In constant dollars the ratio averages 38% in the late 1920's and 44% between 1951 and 1955. Another view is provided by the fairly detailed study of imports and apparent Canadian consumption of various types of equipment since 1926, data which were presented in Table 14. These data showed that quite commonly, imports accounted for a slightly smaller proportion of the Canadian market for particular types of machinery in recent years than they did in the late 1920's, but there were quite a number of categories for which imports have recently been even larger parts of the Canadian supply.

Mr. Scott's forecasts of investment in machinery and equipment do not deal with the prospective investment by various industries, an important matter influencing the type of investment goods demanded and the role of imports in meeting this demand. As is explained in Appendix C, only fragmentary data exist regarding the relationship of industries undertaking investment expenditure to the types of machinery and equipment required. These fragments, together with the discussions of prospective investment and output in various industry studies prepared for the Commission, permit some speculation about the kinds of machinery and equipment which will be demanded. Assuming for the moment that the relative role of imports and domestic sources of supply for particular types of machinery and equipment is the same in the future as it was between 1953 and 1955, it is our judgment that the prospective changes in the content of the machinery and equipment investment will make only a slight difference to the aggregate ratio of imported to domestically supplied machinery and equipment; this slight difference appears more likely to be an increase than a decrease in the fraction of such investment accounted for by imports.

### *The Prospects*

In setting out the prospects for imports of machinery and equipment our judgment is that the ratio of imports of such equipment to the sum of public and private investment and exports of machinery will decline slightly and gradually from the average proportion between 1953 and 1955, which was 45.8%. Our specific expectations are set out in Table 41. The following considerations bear on this judgment:

- (1) The over-all ratio of imports of machinery and equipment to investment in such items is an average of ratios for various equipment which differ widely. However, there has been very little change in the over-all ratio despite different rates of growth in investment in various kinds of investment in Canada and variations in the rate of growth of investment expenditure by various industries. It has been argued in Appendix C that the change in the composition of the aggregate investment in machinery and equipment in the future will have relatively little effect on the proportion which is imported.
- (2) Ordinarily we should expect that the rapid growth in the Canadian market for machinery and equipment will lead to some substitution of domestic sources of supply for imports, because the expanded market would permit reductions in Canadian costs through larger scale operations. It is clear that, other things being equal, the import share of the Canadian market for machinery is much smaller than the average for those lines in which Canada provides a comparatively large market, items such as pulp and paper and mining machinery. It is also clear that the minimum efficient scale of production is smaller for custom machinery than it is for standardized items; correspondingly the import share of the Canadian market is often smaller for custom machinery than for standard items. This must be qualified in that the effective protection for many lines of standard machinery is greater than for custom machinery.

While there are some lines of production in which economies of larger scale production should improve the competitive position of the Canadian manufacturer, it should be noted that quite large expansions of the market have taken place during the last three decades without significant alteration in the import share of the Canadian market for many types of machinery. It should also be noted that economies of scale are much less important in the production of machinery and equipment than they are, for example, in the production of consumer durables.

- (3) In the past a common experience has been for the bulk of a particular type of machinery and equipment to be imported when the Canadian market for the item was in the early stage of development; this was followed by a gradual substitution of domestic production for imports as the Canadian market expanded and developed. One would expect this pattern to continue in the future. However, historically, at the same time as the Canadian production was displacing imports of certain types of machinery and equipment, other new types of equipment were in the early stages of adoption in Canada with high levels of import. The net result has been a rather small change in the over-all ratio of imports of machinery and equipment to new investment in Canada in the long run, on this account. It seems reasonable to expect that this pattern of development will continue.

Both because we view the present (1955 and 1956) proportion of imported machinery as abnormally high, and because we believe that there is merit in the argument that growth will improve the competitive position of the Canadian machinery manufacturers, we have projected the ratio of imports to the Canadian machinery market at less than the current levels. Some will argue that we are seriously underestimating the probable improvement in the competitive position of Canadian machinery manufacturers. To such argument we can only answer that neither the history nor the production characteristics of the Canadian machinery industries lead us to expect a very radical change in the role of imports in the Canadian market for machinery in the next generation.

The resulting projections have been set out in Table 41. The expectation is that the group of imports will increase from about \$875 million in 1955 to about \$1,325 million in 1965 and \$2,700 million by 1980, all figures in 1949 constant dollars. The rate of growth of such imports expected during the period is very largely governed by the rate of growth in public and private investment in machinery and equipment in Canada.

Table 40

**SELECTED DATA ON THE IMPORT SHARE OF THE CANADIAN  
MARKET FOR MACHINERY AND EQUIPMENT, IMPORTS AND  
MARKET VALUED AT PRODUCERS' PRICES**  
(percentage)

Year	All machinery and equipment	Farm machinery	Industrial, mining and electrical machinery	Railway rolling stock, other land vehicles and ships	Office and store, professional and miscellaneous machinery, and equipment
A. Buckley data					
1900	34	27	60	10	50
1905	34	21	56	21	46
1910	39	36	56	19	40
1912	43	42	63	29	37
1920	34	37	53	13	33
1924	30	32	41	11	35
1925	37	50	45	17	36
B. Other data					
1926	43	41	51	26	43
1928	49	57	53	46	36
1929	42	58	55	16	39
1937	35	41	52	12	32
1938	34	42	48	11	34
1939	40	49	49	23	33
1947	47	59	62	16	43
1948	41	68	56	6	30
1949	43	64	55	7	31
1950	44	70	44	30	23
1951	—	72	48	—	32
1952	—	69	49	—	35
1953	—	59	51	—	33

SOURCE: 1900-25 computed from K. A. H. Buckley, *Capital Formation in Canada, 1896-1900*, pp. 130-131; 1926-53 computed from comparable data made available by Dept. of Trade and Commerce and extended as part of this study. Data for "all machinery" in 1951-53 were not included because the details for a few classes of machinery were not available.

Table 41

## PROSPECTS FOR IMPORTS OF MACHINERY AND EQUIPMENT

Year	G.N.E. \$ millions	Private and public investment in machinery and equipment as % of G.N.E. c%	Value of private investment and in machinery and equipment \$ millions	Value of exports of machinery and equipment as % of G.N.E. %	Value of exports of machinery and equipment \$ millions	New investment and exports of machinery and equipment \$ millions	Value of imports of M and E, valued f.o.b., point of origin, as % of new investment and exports of M and E. c%	Value of imports and machinery equipment \$ millions
Part A. Historical data in current dollars								
1928	6,050	6.55	396	.33	20	416	35.5	148
1929	6,091	7.63	465	.41	25	490	34.3	168
1937	5,355	5.68	304	.41	22	326	30.0	98
1947	13,768	7.74	1,065	.08	149	1,214	37.8	459
1950	18,203	7.96	1,449	.92	169	1,618	35.2	570
1951	21,474	8.58	1,842	.88	189	2,031	39.0	793
1952	23,255	8.70	2,022	.94	219	2,241	38.5	863
1953	24,473	8.89	2,176	.87	212	2,388	40.9	976
1954	24,317	8.07	1,940	.77	188	2,128	42.8	910
1955	26,769	7.87	2,107	.67	179	2,286	44.0	1,006
Part B. Historical data in constant (1949) dollars								
1928	8,853	7.39	655	.36	32	687	39.1 <sup>a</sup>	267
1929	8,680	8.66	752	.47	41	793	37.3	296
1937	8,727	5.68	496	.42	37		34.9	186
1947	15,315	8.30	1,272	1.48	182	1,454	37.8	550
1950	17,325	7.92	1,373	.93	161	1,534	34.9	536
1951	18,340	8.48	1,556	.91	166	1,722	39.9	687
1952	19,585	8.76	1,716	.97	191	1,907	42.3	807
1953	20,353	8.92	1,816	.91	186	2,002	44.9	899
1954	19,844	8.15	1,617	.82	162	1,779	46.5	828
1955	21,573	8.06	1,739 <sup>a</sup>	.70	152	1,891	46.2	874
Part C. Forecast (75,000 net immigration) in constant (1949) dollars								
1960	26.20	6.96	1,823	.55	119	1,942	43.0	835
1965	32.35	9.11	2,946	.55	144	3,090	43.0	1,329
1970	40.70	9.51	3,872	.55	224	4,096	40.0	1,638
1975	50.25	9.21	4,629	.55	276	4,905	41.0	2,011
1980	61.75	10.51	6,488	.55	340	6,828	40.0	2,731

<sup>a</sup>Adjusted.

### *IX. Materials for Structures and Miscellaneous Investment Goods*

In this section, two closely related types of imports are dealt with. The group, materials for structure, was defined in Chapter 2 of this study and more carefully in Appendix A. At present, the main items in the group include unmanufactured wood products, structural steel, tubes, pipes and fittings, glass, light fixtures, paints, pigments and varnishes, and building hardware. The miscellaneous investment goods include mainly iron and steel and non-ferrous metal wire goods, designated as miscellaneous investment goods only because the items flow both into machinery and equipment and into structures. Neither at the present time nor since the turn of the century, has the import content been very high for investment in structures in Canada. Further, there appears to have been some trend of decline in these groups of imports relative to investment expenditure in Canada. For example, imports of such materials for structures as are included here averaged about 6.1% of public and private investment in structure in Canada between 1953 and 1955, compared with about 7.5% in 1928 and 1929. Imports of miscellaneous investment goods, as they are called here, amounted to about 0.33% of total public and private investment in recent years, compared with about 1% in the late 1920's. Among the various imported items, there has been a considerable diversity of growth, rapid increases being found for imports of cement, tubes, pipes and fittings, light fixtures, and building hardware, and much slower rates of growth in imported structural steel, sheet and skelp for pipe, paint and pigments, and glass products.

In considering the prospective imports of materials for structures and for miscellaneous investment goods, the first step is to form some notion of the prospective growth of various types of investment expenditure in Canada. The main estimates of prospective investment in structures (other than in residences and other than by government bodies) have been provided, as part of the study of output, labour and capital.<sup>19</sup> This study suggests a general trend of decline in the proportion of G.N.E. which will be devoted to the investment in structures by industry, with some fluctuations about this trend. Estimates of investment in housing and social capital were prepared for the Commission. Also, an estimate of prospective investment expenditure by governments on non-defence projects was prepared. The latter sources, together with Scott's estimates permitted estimates of the prospective private and public investment in structures, the details being placed in Appendix C. Roughly speaking, and making measurements in 1949 dollars, the expectation is that the public and private investment in structures will increase from about \$3.1 billion in 1955 to \$4.5 billion in 1965 and \$7.0 billion in 1980. For the imports of miscellaneous investment goods, a better indicator of the growth in the Canadian market is provided by the total investment rather than by investment in structures alone. The estimates of investment in structures which are provided here together with the investment prospects for machinery and equipment, set out in Table 41 provide the relevant information.

<sup>19</sup>Hood and Scott, *op. cit.*

Let us turn now to the fraction of the relevant Canadian investment expenditure which may be met out of imported supplies. First, consider materials for structures. It is our judgment that the imported supplies will account for a smaller part of the Canadian investment expenditure in structures in the future than they do at the present time. For many types of materials for structures, like cement and bricks and building stone, it is unusual for movement to take place over long distances, thus it is not common to find imports of such items being very large. For lumber, a very important type of structural material, Canada is a net supplier to world markets. For other types of structural materials, the minimum efficient scale of production is not very large; though Canadian costs may exceed foreign costs of production, the excess is smaller than it is for many lines of manufactured goods. Finally, some sectors of Canadian manufacturing of structural materials have comparatively high levels of protection, *e.g.* electric wire and cable. All of these factors combine to keep the imports of structural materials relative to Canadian investment in structures at fairly low levels.

Historically there has been a decline in the proportion of Canadian investment in structures met out of imported supplies, a decline which would have been even greater if it were not for the exceptionally large demands for tube, pipe and fittings during the last few years and for the unusually large imports of cement. For many items, some (small) decrease has taken place in the import share of the Canadian market, including paints, pigments and varnishes, structural steel, and wood products. Already there exist programmes for the expansion of Canadian capacity to produce pipes and fittings and cement, developments which will tend to reduce sharply the proportion of the Canadian market for such items which will be supplied by imports.

As a working rule, it has been assumed that the rate of decline in the proportion of private and public investment in structures accounted for by imported materials will be about the same in the next 25 years as it was between the late 1920's and the present. The resulting estimates of imports of materials for structures are set out in Table 42. Broadly speaking, such imports are expected to increase from \$200 million in 1955 to about \$255 million in 1965 and \$352 million in 1980, all in 1949 constant dollars.

Since the imports of wire goods are so small relative to the Canadian market at the present time, it is hard to see how they could decline very much in the future. We have assumed that the imports of such items will increase in the future at the average of the rate of increase of materials for structures and imports of machinery and equipment.

Table 42

## IMPORT PROSPECTS OF MATERIALS FOR STRUCTURES AND MISCELLANEOUS INVESTMENT GOODS

Item	Unit	Actual					Prospects		
		1928	1929	1950	1953	1955	1965	1980	
1 G.N.E.....	\$(1949) billions	8.95	8.82	17.33	20.33	21.57	32.35	61.75	
2 Investment in structures by industry.....	\$(1949) billions	—	—	—	—	1.73	2.59	3.97	
3 Total public and private investment in structures.....	\$(1949) billions	1.65	1.81	2.25	2.82	3.13	4.54	7.05	
4 Imports of material for structures as % of P and P I in structures .	%	7.40	7.50	6.40	6.40	6.40	5.64	5.00	
5 Imports of materials for structures.....	\$(1949) millions	58	67	150	225	200	256	352	
6 Imports of machinery and equipment.....	\$(1949) millions	267	296	536	899	874	1,298	2,731	
7 Index 1955 = 100 of total imports of materials for structures and machinery and equipment.....	Index 1955 = 100	—	—	—	—	100	145	287	
8 Imports of misc. investment goods, projected on Line 7.....	\$(1949) millions	—	—	—	—	19	27	53	
9 Total imports of materials for structures and misc. investment goods.....	\$(1949) millions	—	—	—	—	219	283	405	
10 Line 9 as % of G.N.E.....	%	—	—	—	—	1.01	0.87	0.66	

SOURCE: See Appendix C.

## *X. Aircraft, Engines and Parts*

Imports of aircraft and parts, and aircraft engines and parts have been among the most rapidly growing sectors of Canadian imports. In considering the future, the group should be extended to include imports of rockets and guided missiles and parts and components for the manufacture of such equipment in Canada.

Much the most important factor influencing the use of aircraft in Canada and thus the import of aircraft and engines has been and will continue to be the national defence programme. For example, in 1953, the Canadian market for aircraft and engines was in excess of \$250 million; the public and private investment in machinery and equipment by civilian airlines was only \$7.5 million in that year (see Table 43). During World War II and since 1950, national defence has provided a very large market for aircraft equipment. As a matter of national policy, a large share of that market has been supplied by a Canadian aircraft industry. Even so, the imports of aircraft, engines and parts have been much larger than in periods when the defence programme was of smaller dimension. This is partly because some types of aircraft for military purposes, such as transports, have been imported; it is also partly due to the substantial volume of imported components and parts incorporated into aircraft manufactured in Canada. While precise information is not available or is not in the public domain, it seems unlikely that imports of aircraft, engines and parts which flow directly or indirectly into military uses were less than \$140 million to \$150 million in 1953 and 1955.

It is not possible for us to make more than a working assumption about the future levels of imports of this group which will flow into military uses. We find it hard to believe that such imports will amount to less than \$175 million on the average during the next 25 years, when parts and components for rockets and guided missiles are included. Even if world tensions are reduced and national defence accounts for a smaller part of our G.N.P., it seems likely that the defence programme would account for an absolutely larger use of resources in the future. Within this framework, it appears likely that the aircraft and guided missiles programmes will also be of absolutely larger size in the future than at the present time. It will be assumed that, as a matter of national policy, Canada will continue to produce a substantial proportion of her military aircraft and guided missiles, but that the flow of imported parts and components is unlikely to be much smaller relative to the value of air machines produced in Canada than it is at the present time. Transport and cargo aircraft will probably continue to be imported for military uses.

Let us turn now to imports of aircraft, engines and parts for civilian use in Canada. The civilian airline industry is much more heavily based on imported aircraft equipment than is the defence programme. All of the larger aircraft now on order by Canadian scheduled airlines or being considered for future orders are of foreign manufacture. While the civil airline market for aircraft

in Canada is not large (estimated expenditure on new machinery and equipment by civilian airlines was \$10 million in 1955) it is a market which has grown rapidly and is expected to grow very rapidly in the future. The brief by TCA showed that operating revenue of that airline had increased at a rate in excess of 10% per annum in recent years: in projecting future revenue, that airline (quite conservatively, in our judgment) suggested that operating revenue by 1965 would be almost double the levels in 1955. CPA, in their brief, expressed the view that their volume of traffic would increase at an average rate of 20% per annum during the next ten years. Privately-owned aircraft are also predominantly of foreign manufacture, though Canada has had one or two very conspicuous successes in the development of smaller aircraft. The statistics of civil aviation in Canada indicate a comparatively rapid growth in the use of privately-owned machines, due in part to increased use of private aircraft for business purposes.

Again, while precise data are not available, it seems unlikely that the imports of new aircraft, engines and parts, including repair parts, for civilian uses, amount to less than an average of \$15 million a year at the present time. In view of the prospective growth of civilian air travel, it is hard to believe that such imports will be less than an average of \$30 million a year by 1965, and an average of \$60 million a year by 1980. Putting this working assumption together with that set out for military aircraft, it seems unlikely that the imports of aircraft, engines and parts for all uses will amount to less than \$205 million by 1965 and \$235 million by 1980, measured in 1955 dollars. In 1949 dollars, the prospective imports would be of the order of \$178 million in 1965 and \$204 million in 1980.

Table 43

## SELECTED DATA ON PRODUCTION, USE AND IMPORTS OF AIRCRAFT EQUIPMENT

	Gross value of production			Total imports of aircraft, engines and parts	Total imports of aircraft	Total imports of engines and parts	Total export of aircraft and parts	Public and private investment in new machinery and equipment by civilian airlines	
	Value of production of aircraft industry in Canada	Net	less repairs and development work	(4)	(5)	(6)	(7)	(8)	(9)
	(1)	(2)	(3)						
1928	—	—	—	2.7	—	—	—	—	—
1929	—	—	—	3.3	—	—	—	—	—
1947	—	—	—	18.2	2.2	10.1	5.9	5.9	7.9
1949	61.1	35.7	—	22.9	0.5	12.7	9.7	24.9	5.5
1950	55.2	35.8	—	18.8	1.2	9.7	7.9	4.4	2.0
1951	—	—	—	61.1	8.8	32.7	19.6	7.5	3.3
1952	244.6	127.3	189.8	162.6	22.7	72.5	67.4	37.5	6.2
1953	398.7	260.5	235.4	158.1	24.2	87.6	36.3	40.2	7.5
1954	—	—	—	115.3	12.8	87.6	14.9	28.4	10.0
1955	—	—	—	171.7	51.5	86.8	33.4	19.9	10.0

SOURCE: Columns (1) to (3): D.B.S., *General Review of Manufacturing*, various issues.Columns (4) to (8): D.B.S., *Trade of Canada*, various issues.Column (9): Department of Trade and Commerce, Public and Private Investment in Canada, 1926-51, *Outlook*, various issues and data made available by the Department.

## XI. Coal

In assessing the prospective imports of coal products, primary reliance has been placed on the study, *Canadian Energy Prospects*, prepared for the Commission. In Chapters 2 and 3 of our import study, trends in imports of coal products were discussed. Such imports were a comparatively large group in Canada's merchandise imports in the early postwar years, about the same proportion as during the late 1920's. Even so, imports of coal products have not grown as rapidly as Canada's gross national production or the total consumption of energy in Canada during the past three decades. Since 1950, *the volume of imports of coal* has declined absolutely; thus a very sharp decrease has taken place in the proportion of Canada's imports represented by such imports.

It is the general expectation that the recent rather sharp decline in imports of coal relative to Canada's gross national production will continue until about 1965; thereafter the imports of coal will probably increase quite rapidly. The judgment is based mainly on two considerations; first, that petroleum products will replace coal in the current main uses of coal, *i.e.* space heating and transportation; second, that increasingly after 1965, a substantial part of the electrical energy used in Ontario will be generated by thermal plants.

At the present time the bulk of the coal consumption in Canada is in space heating and transportation, with smaller amounts used in manufacturing operations. For quite some time, but particularly since the end of the war, there has been a major shift in fuel requirements for space heating and transportation from coal to petroleum products. The bulk of Canada's coal imports were used in Ontario and Quebec. With the rapid transfer of space heating and transportation to petroleum products in these areas, the imports of coal have decreased absolutely in recent years. The expectation is that the major users of coal will continue to switch rapidly towards petroleum products and that the switch will be almost complete in 1965. At the same time, however, there will be some increase in the use of coal in manufacturing operations and some additional use of coal in thermal generation of electricity. However, it is expected that after 1965 a very substantial part of the electric power generating installations in Ontario will be thermal plants; thus, there will be a very rapid increase in the coal market in central Canada and it is expected that imported coal will supply the bulk of the market.

Projections of the volume of imports of coal products are set out in Table 44; these were taken from the study of Canadian energy prospects. In that study, no formal division of these estimates was made among the various types of fuel products; this is an important matter for establishing the prospective value of imports. From the qualitative analysis in the energy study, it appears likely that imports of anthracite coal will decline sharply between now and 1965, and thereafter remain at low levels, as this type of fuel is predominantly required for home heating purposes. The main impact of the fluctuations in the volume of coal imports will fall on bituminous

coal; in particular this will be the main form of coal used in thermal generation of electricity in Ontario. Taking account of these qualitative considerations, a division of the total volume of imported coal products was made, and the value of each flow estimated on the basis of 1949 unit values of import of the various types. The result is set out in Table 44; it is expected that the value of imports of coal products will decrease from \$128 million in 1955 to \$95 million by 1965, increasing to \$240 million by 1980, all estimates in 1949 prices.

Table 44

## PROSPECTS OF IMPORTS OF COAL PRODUCTS

	Unit	Actual		Prospects	
		1950	1955	1965	1980
1. Canadian consumption of coal	Millions of tons	45.7	33.7	26.5	55.5 to 63.0
2. Canadian imports of coal	Millions of tons	27.0	19.7	17.0	41.5 to 49.0
3. Canadian imports of coal products	Millions of tons	0.8	0.9		
4. Value of imports of coal and selected coal products	\$(1949) millions	175.3	127.8	95	240
5. G.N.P.	\$(1949) billions	17.3	21.6	32.4	61.8
6. Value of imports of coal and products as % of G.N.P.	%	1.01	0.59	0.29	0.39

SOURCE: Lines 1 and 2: John Davis, *Canadian Energy Prospects*, Ottawa, 1957.

Line 3: *Trade of Canada*, Vol. III.

Line 4: Volume of imports converted to 1949 values using unit values in 1949 developed from Vol. III of *Trade of Canada*.

## XII. Petroleum Products

One of the most important changes in Canada's international trading position has been the recent development of Canadian production of crude petroleum. Prior to this, imports of crude petroleum and products were a large and increasing element in the total value of Canada's merchandise imports. Indeed, until comparatively recently, imports of petroleum were increasing at a faster rate than the Canadian G.N.P. These imports consisted of crude petroleum for refining and imports of a number of products, the more important of which have been aviation gasoline and various kinds of fuel oil in recent years. Since 1947, Canadian crude petroleum has come to serve Canadian oil refineries almost completely except for the Montreal area refineries and those in the Maritimes. Imports of a selected group of petroleum products have continued to increase in recent years, but the over-all result has been that imports of petroleum and its products have fallen relatively to both Canada's G.N.P. and Canadian merchandise imports.

The most important difficulty in setting out the prospective imports of petroleum and products centres around the degree to which Canadian crude petroleum will serve refineries in the Montreal area. The industry has widely

differing views on the question; the answer is bound up with considerations of alternative export markets for Canadian crude petroleum and the relative expensiveness of Canadian and other sources of crude petroleum in the future in the Montreal area. In any case, the growth in imports of petroleum products will be less rapid in the future than it was during the past three decades and less rapid than that of Canada's G.N.P.

In assessing the prospects for imports of petroleum products, major reliance has been placed on the study of Canadian energy prospects<sup>20</sup> carried out for the Commission, together with a number of briefs submitted to the Commission by firms in the petroleum and in the automobile business. These studies agree on two important general points. First, petroleum is expected to account for an increased proportion of Canada's energy requirements, with the result that the demand for petroleum in Canada is expected to increase more rapidly than Canada's G.N.P., particularly between now and 1965. Second, Canada is expected to become a net exporter of petroleum. The estimates of the total Canadian market for petroleum products which were developed in the Commission's study are the ones used in projecting the import prospects in this import study; the estimated total market for petroleum products in Canada is expected to increase from about 623 thousand barrels a day in 1955, to one million barrels a day in 1965 and about one million 900 thousand barrels a day in 1980, all product measurements being in crude petroleum equivalents.

Regarding imports of petroleum products wide differences of view exist. There is agreement that some imports of refined petroleum products will continue into the Canadian market west of the Quebec border, and that substantial imports of refined petroleum products will continue into the Atlantic and Quebec regions. There is also agreement that Canadian refineries west of the Quebec border will, by 1965, be completely served by Canadian crude petroleum and that Canadian refineries in the Atlantic region will be completely served by imported crude petroleum. The differences of view concern the flow of Canadian crude petroleum to refineries in the Quebec region, estimates ranging from all to none of this market being supplied by Canadian crude.

At present the Montreal and Atlantic refineries are largely supplied from Venezuelan and, to a limited extent, by Middle East crude petroleum.<sup>21</sup> It is generally acknowledged that imports of crude petroleum from those areas are, and will continue to be, in a very strong competitive position relative to Alberta oil in the Montreal market, providing that satisfactory outlets for Alberta crude can be found closer to western Canada. The economics of the situation indicate that the United States will become increasingly dependent on imported petroleum, and that areas closer to Alberta than is Montreal, will provide excellent outlets for western Canadian crude. This consideration,

<sup>20</sup>John Davis, *Canadian Energy Prospects*, Ottawa, 1957.

<sup>21</sup>This was written in the summer of 1956.

together with the enormous body of cheaply discovered reserves in the Middle East, suggests that imported crude will continue to serve the Montreal and Atlantic markets in the future. However, some people argue that quota arrangements will limit the export of Canadian petroleum to the United States, and that political considerations, including military requirements, will lead to the building of a crude pipeline for western oil to Montreal.

In making estimates of the value of prospective imports this writer has not been able to settle on one of these views regarding crude petroleum in the Montreal area. Three sets of estimates have been made. The first follows the lead of the energy study, taking a middle ground in the controversy, assuming that Canadian crude petroleum will flow to the Quebec region, but meeting only part of the demand for crude in that area. The second assumes that no Canadian crude petroleum will flow to the Quebec region and the third, that Canadian crude petroleum will completely serve the refineries in that region. The resulting estimates have been set out in Table 45.

The energy study, assuming that 100 thousand barrels a day of Canadian crude flow to the Quebec region in 1965 and 200 thousand barrels a day in 1980, estimates the 1980 imports of petroleum products at 228 thousand barrels a day and the 1980 imports of crude petroleum at 259 thousand barrels a day. Estimates are also given for 1965. These estimates were used to project separately the 1955 value of imports of crude petroleum and petroleum products in the future, subject only to minor adjustments in the projected value of imports of petroleum products due to an expected shift in the form of such imports toward less expensive items. The result is a prospective import of petroleum and products valued at \$325 million in 1965 and \$527 million in 1980, compared with \$353 million in 1955, all figures in 1949 (constant) dollars. If the Quebec area refineries were served completely by Canadian crude petroleum in 1980, the alternative value of imports of crude petroleum and products in that year would be \$390 million, whereas, if no Canadian crude flows to the Quebec refineries, the 1980 imports for the group would be \$853 million. (See Table 45 and Appendix C.)

Table 45

## IMPORT PROSPECTS OF PETROLEUM PRODUCTS

	Unit	Actual	Prospects			Prospects			Prospects
			1955	1965	1980	Assuming Quebec refineries served by Canadian crude	Assuming Quebec refineries served entirely by imported crude	Assumptions of fuel and power study, Quebec refineries supplied partly by imported and partly by Canadian crude	
1. Imports of crude petroleum.....	000 bbl/day	226	(1)	(2)	(3)	(4)	(5)	(6)	(7)
2. Imports of products.....	000 bbl/day <sup>a</sup>	93	137	150	120	237	459	137	259
3. Value of imports — crude petroleum.....	\$(1949) mills.	223	136	136	118	234	453	136	256
4. Value of imports — products.....	\$(1949) mills.	130	188	188	271	188	271	188	271
5. Total value of imports of petroleum and products	\$(1949) mills.	353	324	324	389	422	724	325	527
6. G.N.P.....	\$(1949) bills.	21.6	32.4	32.4	61.8	32.4	61.8	32.4	61.8
7. Imports of petroleum products as % of G.N.P..	percentage	1.64	1.00	1.00	0.63	1.30	1.17	1.00	0.85

<sup>a</sup>Measured in crude equivalent.SOURCE: Lines (1) and (2): John Davis, *Canadian Energy Prospects*, Ottawa, 1957.

Lines (3) and (4): 1955: 1955 current \$ value of imports deflated by special price indexes constructed from *Trade of Canada*, 1965 and 1980: 1955 value projected on basis of Lines 1 and 2, except that a 10% deduction has been made in 1965 and 15% reduction in 1980 in the value of *product* imports for the expected change in the mixture of product imports toward less expensive items. (See Appendix C.)

### XIII. Selected Chemicals

This group includes all items found in the import classification. Chemicals and Products, in *Trade of Canada*, except for those items which have been assigned in this study to specific uses and thus treated earlier in this chapter; items like drugs and pharmaceuticals; dyeing and tanning materials; paints, pigments and varnishes; perfumes and toilet preparations and soaps. After deducting these items, the value of imports of chemical products dealt with in this section amounted to \$164.8 million in 1953 and \$197.1 million in 1955, both in current dollars. This group of chemicals corresponds fairly closely to what were called basic chemicals in the study *The Canadian Chemical Industry*, prepared for the Commission.<sup>22</sup> The latter study has been our main source of information.

In recent decades, imports of basic chemicals have increased more rapidly than either G.N.E. or the total of merchandise imports. The main reason for the rapid increase in imports of chemicals has been the very rapid growth in the market for such products in Canada. In current dollar terms the apparent Canadian consumption of all chemical products was 6.5 times as large in 1953 as it was in 1930, while G.N.E. was about 4.4 times as large. The consumption of basic chemicals was approximately 7.7 times as large in 1953 as in 1929, while G.N.E. was about four times as large. Turning to the import share of the Canadian market for chemicals, while the changes are not large, there has been a gradual trend of decline. (See Table 46.)

Comparing 1953 and 1929, for both the basic chemicals and consumer and allied chemical products, the import share of the Canadian market was lower in the later period, though the decline was larger for the consumer and allied chemicals than for the basic items.

Table 46

#### IMPORT SHARE OF THE CANADIAN SUPPLY OF CHEMICALS, SELECTED YEARS

	1929	1935	1940	1945	1950	1953	1955
Basic chemicals . . . . .	42.8	40.8	36.4	26.4	34.7	33.5	—
Consumer and allied chemicals . . . . .	21.1	19.6	15.1	12.8	15.7	12.6	—
Total chemicals . . . . .	30.7	28.6	26.5	20.8	25.8	24.6	25.2

SOURCE: Computed from data found in the study by John Davis, *The Canadian Chemical Industry*, Ottawa, 1957.

The consensus on the growth in the consumption, production and imports of chemicals in Canada, is, in most general terms, that the past trends will continue; it is expected that growth in the use of chemicals in Canada will be more rapid than in G.N.P. and that the import share of the total Canadian market for chemicals will continue to decline. After examining various projections of the over-all Canadian market for chemicals, the study *The Canadian Chemical Industry*, takes as the best current guess of the market about \$6,000

million of chemicals in 1980, compared with about \$1,100 million in 1953 and almost \$1,250 million in 1955. In other words the market is expected to expand at an average annual rate of 6.5% compounded annually.

Considering the total chemical industry, in Dr. Davis' study the judgment is expressed that the import share of the Canadian market will decline from about 25% in 1955 to about 23% by 1965 and to about 20% by 1980. It has been argued that this is a less rapid rate of decline in the import share of the total Canadian market for chemicals than has taken place in the past, an expectation based mainly on the growing importance of organic chemicals, the nature of production of organic chemicals and the continued smallness of scale of the Canadian market.

"Traditionally, there has always been a lag between production in the United States and production in Canada. Market size limitations are one cause, limited research activities are another. The fact that comparatively new chemical products are continually being replaced by other and more suitable ones is also having its effect. So in numerous instances is the fact that parts of the Canadian market can better be served by American plants located close by or by water-borne movements from overseas. These continuing influences are among the reasons why Canada's imports of chemicals are unlikely to show a marked decline relative to production over the next quarter century".<sup>23</sup>

It is also pointed out that a series of special circumstances enabled Canadian producers to overcome import competition in the production of inorganic chemicals, and that Canada was largely self-sufficient in these items by the end of World War II. "More recently emphasis has been shifting to organics. Because their production — and particularly that of the more highly specialized organics — must await a further rounding out of this vital and yet comparatively undeveloped sector of the Canadian economy (secondary industries of an intermediate type), a sizable proportion of these increasingly important chemicals will continue to be imported from abroad."<sup>24</sup>

The arguments and forecasts expressed in *The Canadian Chemical Industry* have been followed in projecting those imports of chemicals dealt with in this section of our study. Because the import share of the Canadian market for chemicals is expected to fall from about 25% in 1953-55 to about 20% by 1980, the volume of imported chemicals is expected to reach about 440% of 1953 levels by 1980, compared with a Canadian market of 545% of 1953 levels by 1980. The bases of these calculations are set out in Appendix C. In terms of 1953 dollars, the result is that imports of those chemical products treated here are expected to increase from about \$165 million in 1953 and \$197 million in 1955 to about \$326 million by 1965 and \$725 million by 1980. These projections, together with those expressed in 1949 dollars, are set out in Table 47.

<sup>23</sup>*Ibid.*

<sup>24</sup>*Ibid.*

Table 47

IMPORT PROSPECTS OF SELECTED CHEMICAL PRODUCTS<sup>a</sup>

Item	Unit	Actual			Prospects	
		1953	1955	1965	1980	
1. The total Canadian supply of chemicals	Current \$ 1953 and 1955; 1955					
2. Index of volume of total Canadian supply of chemicals	\$ for prospects; (millions)	1,105	1,244	2,340	6,000	
3. Import share of the Canadian supply of chemicals	1953 = 100	100	113	212	543	
4. Index of volume of total imports of chemicals	Percentage	24.6	25.2	23.0	20.0	
5. Value of imports of selected group of chemicals (prospects based on Line 4)	Index, 1953 = 100	100	116	198	441	
6. Value of imports of selected group of chemicals (Line 5 converted to 1949 \$)	Current \$ millions for 1953 and 1955; 1953 \$ millions for prospects	164.8	197.1	326	727	
7. G.N.P.	1949 \$ millions	149.5	178.1	296	660	
8. Value of imports of selected group of chemicals as % of G.N.P.	1949 \$ billions	20.3	21.6	32.4	61.8	
	Percentage	0.69	0.82	0.91	1.07	

<sup>a</sup> Chemicals and products, per *Trade of Canada*, less drugs and pharmaceuticals, dyeing and tanning materials, paints, pigments and varnishes, perfumes and toilet preparations and soap.

SOURCE: See Appendix C.

#### *XIV. Unassigned Industrial Materials Other Than Basic Chemicals*

The way in which imports of industrial materials have been dealt with in this study should be recalled. Those which could be assigned to more or less specific end uses — such as food or parts for the manufacture of durable consumer goods — on the basis of information readily available in the trade statistics, were allotted to the various import classes; they have been discussed in earlier sections of this chapter. There remained a rather large group of imports of industrial materials other than fuels which have two or more end uses in the economy, or on which the import statistics do not contain adequate information for assignment. (Given enough time, and using the information available from the census of industry, it would be possible to allocate the bulk of this residual to the industries which use the imports, and to a considerable degree, to end uses in the economy. However, such a job was well beyond the scope of this study.<sup>25</sup>)

Chemicals, one part of this residual group of imports of materials, were treated in Section XIII of this chapter. It is the remainder, which we call unassigned industrial materials, which are the concern here. Broadly speaking, this group includes imports of multi-purpose basic iron and steel items, raw rubber, general purpose non-ferrous and non-metallic mineral products and wood pulp. Selected data on the value of imports of the larger sub-groups are set out in Table 48.

In Chapter 3, it was argued that the total imports of these unassigned materials had increased less rapidly than G.N.E. and less rapidly than the total of Canadian merchandise imports in the past. (See Table 49.) There has been considerable diversity in the growth of imports of the main items. Imports which have increased less rapidly than the group average include the primary iron and steel items, miscellaneous non-ferrous metal products and abrasives. Imports of some items have increased much more rapidly than the group average, including such commodities as iron ore, brass manufactures, bauxite and fire brick. This diversity of growth in imports of the various items cannot be explained by one factor alone. In some cases the trend in imports is mainly due to the growth in Canadian consumption of the item; for example, the Canadian consumption of fire brick has increased very rapidly, with a corresponding increase in imports. In other cases and for quite a number of the items of unassigned industrial materials, the Canadian consumption of the commodity has increased very rapidly, but imports now represent much smaller parts of the Canadian supply than they did three decades ago. This situation applies to imports of raw rubber, primary manufactured copper products and basic iron and steel products.

In considering the prospects for imports of the group, a rough aggregative approach has initially been followed, dealing with the group as a whole rather

<sup>25</sup>See Appendix A. A fairly comprehensive allocation of imports among using industries was made for 1949 in connection with the construction of the 1949 Input-Output table by D.B.S. The methods and problems are discussed in D.B.S. Reference Paper 72.

than with each main type of import; this has been followed by brief analysis of a few of the major items. It is our judgment that the group of imports, considered as a whole, will grow less rapidly than G.N.P. in the future, the ratio of such imports relative to G.N.P. declining by a little more than 20% during the next 25 years. This judgment is based on the following considerations:

(1) The main market for these industrial materials is supplied by secondary manufacturing. Secondary manufacturing activity is expected to grow moderately in the future as a proportion of the Gross Domestic Product, but probably at a somewhat slower rate than it grew during the last 30 years. In addition, the trend in manufacturing activity has been, and is expected to continue to be, one of increased manufacturing activity per dollar of materials used.

(2) For many industrial materials there has been a relative replacement of imports by domestic sources of supply. One of the most important sub-groups with which we are concerned is primary iron and steel products. The study of the Canadian primary iron and steel industry concludes:

"In the past quarter century the proportion of primary steel imported has declined from about one-half to roughly one-third, and it is reasonable to expect a continuing decline. Imports cannot be expected to cease, if only because it is unlikely that all the specialty steel items and a full range of wide-flange beams will be made in Canada. However, as the industry grows in size and increases the variety of its products and the gauge of widths and gauges it makes, imports might very well become a comparatively small proportion of total consumption, perhaps as little as one-sixth or one-eighth."<sup>26</sup>

A larger fraction of Canada's requirements of iron ore will also be supplied in the future from domestic sources. Canadian manufacturing facilities appear to have opportunities for continued improvement in their competitive position in the production of primary non-ferrous and non-metallic mineral products; indeed substantial additions to Canadian manufacturing capacity in many of these products are currently being developed.

Considering these factors, we assume that the ratio of imports of unassigned industrial materials to Canada's G.N.P. will decline from about 2.05% between 1953-55 to about 1.87% by 1965 and 1.65% by 1980, all ratios calculated on the basis of (1949) constant dollar estimates. (Between 1926-29 and 1953-55 the ratio decreased from 2.33% to 2.05%.) This implies a growth in the group of imports to about \$1,020 million dollars by 1980, compared with \$422 million average between 1953 and 1955.

<sup>26</sup>*The Canadian Primary Iron and Steel Industry*, a study prepared for the Commission by The Bank of Nova Scotia, Ottawa, 1957.

Table 48

## IMPORTS OF UNASSIGNED INDUSTRIAL MATERIALS—HISTORICAL STATISTICS

*(excluding basic chemicals — millions of current \$)*

Group	1928	1929	1937	1938	1950	1951	1952	1953	1954	1955	Average 1928-29	Average 1953-55	Average 1953-55 as % of 1928-29
1. Rubber, raw and partly manufactured . . . . .	18.1	17.1	16.3	9.5	33.4	64.5	28.7	25.9	24.2	44.1	17.6	37.3	211.9
2. Gums and resins . . . . .	0.4	0.5	2.3	1.4	5.8	6.2	5.1	4.9	5.8	6.7	0.4	5.8	145.0
3. Wood pulp . . . . .	0.3	0.3	4.7	2.0	6.4	4.9	4.9	5.1	5.6	6.7	0.3	5.8	193.3
4. Iron ore . . . . .	4.3	5.0	4.7	2.8	16.8	22.7	26.6	28.1	20.4	31.6	4.7	26.7	568.0
5. Other pig iron, blooms, billets . . . . .	3.0	2.8	1.1	0.7	3.2	11.4	13.2	3.8	4.8	6.5	2.9	5.0	172.4
6. Iron bars . . . . .	4.2	4.8	3.8	2.8	11.8	17.0	15.1	10.3	6.7	9.3	4.5	8.8	195.6
7. Steel sheets, plate, hoops, band and strip . . . . .	39.5	40.8	35.1	19.0	65.8	105.8	87.4	79.6	53.3	75.4	40.2	69.4	172.6
8. Bauxite . . . . .	2.8	3.2	3.8	2.4	9.9	15.3	12.9	16.6	20.1	20.8	3.0	19.2	640.0
9. Brass manufactures . . . . .	1.7	2.5	3.4	2.6	14.2	16.4	13.6	17.6	18.1	19.2	2.1	18.3	871.4
10. Copper products . . . . .	10.7	16.0	1.2	0.8	2.1	3.4	10.1	9.2	4.2	5.3	13.4	6.2	46.3
11. Platinum, raw . . . . .	—	—	0.3	0.2	21.3	17.8	18.2	19.3	18.9	16.8	—	18.3	—
12. Ores, n.o.p. . . . .	—	—	1.6	1.6	17.4	13.0	12.4	13.2	5.2	9.6	—	9.3	—
13. Fire bricks . . . . .	0.5	0.6	3.2	8.2	8.3	12.9	12.3	12.2	7.5	11.0	0.5	10.2	204.0
14. Selected coal products . . . . .	—	—	0.8	0.9	13.2	10.5	7.6	8.6	8.3	9.9	—	8.9	—
15. Abrasives . . . . .	3.6	5.3	5.2	4.4	9.6	12.0	13.9	12.9	11.6	15.0	4.4	13.2	300.0
16. Other . . . . .	65.9	80.1	57.8	34.4	145.4	252.0	245.3	240.6	243.0	260.1	73.0	247.9	339.0
17. Grand total . . . . .	155.0	179.0	145.3	93.7	384.6	585.8	527.3	507.9	457.7	548.0	167.0	504.5	302.0

SOURCE: Appendix C.

Table 49

### SELECTED DATA ON GROWTH IN IMPORTS OF UNASSIGNED INDUSTRIAL MATERIALS

	Value of imports of unassigned materials in millions of dollars		Gross national production in millions of dollars		Imports of unassigned industrial materials as % of G.N.P.	
	Current	Constant (1949)	Current	Constant	Current	Constant
Average 1928-29	167.0	207.1	6,136	8,885	2.72	2.33
1950	384.6	320.5	18,203	17,325	2.11	1.84
1952	527.3	419.2	23,255	19,585	2.27	2.14
1953	507.9	427.1	24,473	20,332	2.07	2.10
1954	457.7	391.1	24,317	19,844	1.88	1.97
1955	548.0	416.4	26,769	21,573	2.05	1.93
Average 1953-55	504.5	412.0	25,153	20,583	2.01	2.00

SOURCE: See Appendix C.

Table 50

### IMPORTS PROSPECTS OF UNASSIGNED INDUSTRIAL MATERIALS

	Unit	Actual		Projections		
		1953-55 Average	1953-55	1955	1965	1980
G.N.E.....			20,590.	20,353.	32,350.	61,750.
Imports of unassigned industrial materials as % of G.N.E.....	\$(1949) mills.	%	2.00	2.10	1.84	1.65
Imports of unassigned industrial materials.....	\$(1949) mills.		412	427	596	1,018

SOURCE: Appendix C.

### XV. *Special Items*

This group consists of a number of items which did not lend themselves to classification elsewhere, items such as Canadian goods returned from abroad, imports of arms from Commonwealth and NATO countries, works of art and plants, shrubs and trees. In recent years the group has increased rapidly in value, mainly due to the great increase in imports of arms, *e.g.* in 1955 imports of the group as a whole were valued at \$65.8 million and the arms item amounted to \$45.4 million, both in current dollars.

Somewhat arbitrarily, the value of this group of imports has been set down at \$70 million in 1965 and \$100 million in 1980, compared with \$61 million in 1955, all in 1949 constant dollars. Between the late 1920's and the present time, the items other than arms have increased from about \$10 million to \$17 million in current dollars. Comparatively modest increases may be expected in the future. The imports of arms will probably continue to grow, though somewhat more slowly than Canada's national output.

Table 51

#### IMPORTS — SPECIAL ITEMS

(value of imports in current \$ millions)

Year	Cdn. goods returned from abroad	Ships' stores	Works of art	Plants, shrubs, trees	Total non- military	Arms	Total	Value of imports in 1949 \$ (millions) total
1928	3.3	0.5	2.3	1.8	10.2	0.2	10.4	—
1929	2.9	0.5	1.9	1.9	11.7	0.1	11.8	—
1950	6.7	0.3	2.5	2.3	11.8	1.0	12.8	—
1951	7.4	0.3	3.3	2.9	14.0	7.7	21.7	—
1952	5.9	0.3	2.5	3.4	12.1	18.9	31.0	—
1953	7.2	0.2	2.6	3.9	13.9	29.7	43.6	41.0
1954	9.5	0.2	3.3	4.2	17.2	25.0	42.2	—
1955	10.5	0.2	3.7	4.7	20.4	45.4	65.8	61.0

SOURCE: See Appendix A.

### XVI. *Invisibles or Services*

Canada's imports of invisibles involve substantial payments to foreigners for freight and shipping, tourist and travel services, interest and dividends, commercial services and such. In 1955 these items amounted to approximately \$1.9 billion in current prices and to slightly more than \$1.5 billion in 1949 prices. The historical record of Canada's invisible imports was set out in Chapters 2 and 3 and the general characteristics of the prospects were discussed in Chapter 4. In this section, the earlier discussions are summarized and some rough quantitative estimates of the prospects are set down.

There are very great difficulties in estimating the prospective level of imports of invisibles. For example, payment of interest and dividends to foreigners will depend on the growth in Canada's gross liabilities to foreigners. In turn, these will partly depend on corporate practices regarding the retention and transfer of earnings. As another example, the current payments for services include expenditures for the use of patents and various other business services provided to branch plants. The pricing of such services depends on highly changeable practices of corporate management and accounting.

Some rough judgments on the possible magnitude of Canadian imports of invisibles are set out in Table 52, along with selected historical data. Our judgment is that the imports of invisibles will increase from a little more than \$1.5 billion in 1955 to about \$2.2 billion by 1965 and approximately \$3.8 billion in 1980, all expressed in 1949 prices. In other words, it is our expectation that the imports of invisibles will increase by roughly 145% between 1955 and 1980, compared with an expected increase in G.N.E. of about 180%.

Canada's payments to foreigners for freight and shipping services depend quite closely on the volume and content of merchandise imports. Historically, the ratio of freight and shipping payments to merchandise imports has fluctuated within a fairly narrow range. However, in recent years the ratio has declined quite sharply, the main factor being the relative decrease in imports of coal into Canada. A contributing factor has been the development of western Canadian sources of petroleum, transported by Canadian companies. It is our judgment that the ratio of payments for freight and shipping services to merchandise imports will continue to decline in the future. This view is based partly on the expectation that imports of coal and petroleum will be an even smaller proportion of Canada's merchandise imports in the future than they are at present. It is also based partly on the general downward drift in the ratio of transportation costs to the value of final products, as the final products increase in value relative to their bulk and weight. The prospective payments to foreigners for these services have been set down at \$360 million in 1965 and a little less than \$600 million in 1980, compared with \$300 million at the present time (all in 1949 prices).

The historical record indicates that Canadian expenditures on tourism and travel abroad have increased at about the same rate as personal expenditure on goods and services by Canadians. It is our expectation that this trend will continue. Tourism and travel are types of consumption on which expenditures apparently increase at least proportionately with income. To an increasing extent, business firms are rewarding their executives with winter vacations in the southern states. The facilities for long distance travel have been greatly improved. We have assumed that tourist and travel payments by Canadians to foreigners will be about 2.7% of total personal expenditure on consumer goods and services in 1965 and in 1980, compared with 2.9% in 1955 (all ratios based on data measured in 1949 prices). On this basis it is expected

that such payments will reach almost \$600 million in 1965 and exceed \$1.1 billion in 1980, compared with a little more than \$400 million in 1955.

Payments of interest and dividends to foreigners depends on Canada's gross liabilities to foreigners, on rates of interest or earnings, and on corporate practice of retaining earnings. It was pointed out in Chapters 2 and 3 that the most startling change in Canada's invisible import position during the last three decades was the relative decline in payments of interest and dividends to foreigners. They bear a much smaller ratio to Canada's G.N.E. now than in the late 1920's. The main explanation is the decrease in Canada's gross liabilities to foreigners compared with the Canadian G.N.E. which took place in the 1930's, the war and early postwar period.

It is our preliminary judgment that Canada's payments of interest and dividends will grow on the average about as rapidly in the next 25 years as Canada's G.N.P. but that the rate of growth in interest and dividend payments may be more rapid during the next ten years than the average over the 25-year period. Several considerations point in this direction.

First, Canada's payments of interest and dividends to foreigners appear to be unusually low at the present time compared with Canada's gross foreign liabilities. In recent years, a number of new projects have been developed along with a comparatively rapid increase in Canada's gross foreign indebtedness. Many of these projects have not yet reached a normal position of earnings and dividends payments. This will lead to a fairly rapid increase in interest and dividend payments during the next ten years. In other words, even though Canada's gross liabilities to foreigners did not increase above present levels in absolute terms, we would expect that the absolute value of the annual interest and dividend payments would increase in the next ten years.

Second, many of the foreign-owned industries can be expected to grow along with the general growth of the Canadian economy. The growth of such enterprises will be based in part upon the retention in Canada of the Canadian earnings of such enterprises. The available data indicate that the practices of foreign enterprises as regards the intention of earnings are not very different now than they were in similar periods in the past. While there apparently are minor differences in the average proportion of earnings retained in the business between foreign-owned and Canadian-owned firms, there is no doubt that a substantial proportion of the earnings of foreign-owned enterprises will be retained in business in Canada. Thus it is expected that Canada's gross liabilities to foreigners will continue to increase even if there are no new capital flows into Canada, in a balance of payments sense.

Third, it seems highly likely that capital will continue to flow into Canada in the future, though this may be paralleled by an increasing stream of Canadian investment abroad. This means that Canada's gross liabilities to foreigners and the associated payment of interest and dividends may be expected to

grow in greater measure than would be indicated by our first two conclusions, but that a parallel growth in payments of interest and dividends by foreigners to Canadians may take place. Rough calculations suggest that the gross Canadian liabilities to foreigners may reach \$40 billion to \$50 billion (at 1955 prices) by 1980, assuming no major depression. We have tentatively set down the interest and dividend payments at \$710 million in 1965 and \$1,160 million in 1980, compared with a little more than \$400 million at the present time, all expressed in 1949 prices.

The other current debits include payments for various business services, the support of military forces abroad and diplomatic missions, and so on. Historically this package of services or payments has increased at a slightly slower rate than Canada's G.N.P. However, since 1950 these payments have been unusually large because of the comparatively heavy expenditures for support of Canadian military missions abroad. It is our expectation that they will grow at a rate slightly less rapid than G.N.P. in the future. This means that the payments may be of the order of \$565 million in 1965 and almost \$1.0 billion in 1980, compared with a little more than \$400 million at the present time, all in 1949 prices.

Table 52

**PROSPECTS FOR IMPORTS OF INVISIBLES**  
 (\$ millions unless otherwise specified)

	Current dollars					Actual in K(1949) dollars				Prospects in K (1949) dollars		
	1929	1950	1953	1955	1950	1953	1955	1950	1953	1955	1965	1980
1. Merchandise imports (adjusted).....	1,272	3,129	4,210	4,540	2,903	3,916	4,161	5,377	5,377	9,687	5,377	9,687
2. Freight and shipping.....	130	301	374	408	275	285	298	360	360	581	360	581
3. Freight and shipping as % of merchandise imports.....	10.2	9.6	8.9	8.7	9.5	7.3	7.2	6.6	6.6	6.0	6.6	6.0
4. Personal expenditure on consumer goods and services <sup>a</sup> .....	4,549	12,029	15,112	16,888	11,645	12,905	14,300	21,300	21,300	41,600	21,300	41,600
5. Tourist and Travel Payments.....	108	226	365	449	210	340	414	575	575	1,120	575	1,120
6. Tourist and Travel Payments as % of Personal Expenditure on Consumer Goods and Services.....	2.37	1.88	2.42	2.61	1.80	2.63	2.90	2.7	2.7	2.7	2.7	2.7
7. Interest and dividend payments.....	322	475	404	477	460	366	419	712	712	1,159	712	1,159
8. Gross liabilities to foreigners <sup>b</sup> .....	8.0	9.9	12.6	14.5	—	—	—	—	—	—	—	—
9. G.N.E.....	6,166	18,203	24,473	26,769	17,325	20,332	21,573	32,350	32,350	61,750	32,350	61,750
10. Interest and dividend payments as % of gross liabilities to foreigners (7 as % of 8).....	4.0	4.8	3.2	3.3	—	—	—	—	—	—	—	—
11. Gross liabilities to foreigners as % of G.N.E. (8 as % of 9).....	129.7	54.3	51.4	54.1	—	—	—	—	—	—	—	—
12. Index of projected interest and dividend payments, 1955 = 100.....	—	—	—	—	—	—	—	—	—	—	—	—
13. Other current debits.....	113	381	471	540	361	371	415	566	566	956	566	956
14. Other current debits as % of G.N.E. (13 as % of 9).....	1.8	2.0	1.9	2.0	2.0	1.8	1.9	1.5	1.5	1.55	1.5	1.55
15. Total imports of invisibles	—	—	—	—	—	—	—	—	—	—	—	—
<i>National Accounts concepts</i>												
(Lines 2 + 5 + 7 + 13).....	673	1,383	1,614	1,874	906	1,362	1,546	2,213	2,213	3,815	2,213	3,815

NOTE: The *National Accounts* concepts are used throughout this table. Regarding international payments they differ in minor respects from the balance of payments concepts and from the *Trade of Canada* concepts.

<sup>a</sup>The published estimates have been used; these are subject to revision.

<sup>b</sup>In billions of dollars; 1929 figure has been extrapolated from 1930.

## ***XVII. Geographical Distribution of Canadian Imports of Goods and Services***

### ***Part A: Merchandise Imports***

In public debates, in the press and in briefs to the Commission, frequent references have been made to the historic decline in the fraction of Canada's imports derived from the United Kingdom and increase in the proportion from the United States. In this section the prospective geographical distribution is considered. Is it likely that even larger fractions of Canada's imports will come from the United States, that smaller fractions will come from the United Kingdom? What are the prospects for imports from Western Europe and other areas? It is our judgment that small increases will take place in the proportions derived from the United States and from the United Kingdom, and decreases in the share from all other areas considered together. This view is based on analysis of the prospective imports of various types of goods, and on the probable division of Canada's imports of each type among various geographical regions.

#### ***Historical experience***

For at least three-quarters of a century, a gradual increase has been taking place in the share of Canadian merchandise imports coming from the United States, more or less paralleled by a decrease in the proportion coming from the United Kingdom. Occasional, but not sustained, reversals of this trend have been experienced, as in the 1930's. In the first quarter of this century there was also a marked increase in the proportion of Canadian imports derived from Western Europe and a decline in the share from other areas of the world. Since the late 1920's the long-run trend in this respect has been reversed. In analyzing the proximate basis of these trends, it was found quite useful to deal first with those changes in the geographical source of imports which have been closely associated with the changes in the content of the import bill, and to treat separately the sharing of the Canadian import market for particular types of goods among various countries. In Chapters 2 and 3 it was shown that consumer durables, machinery and equipment, and parts for the manufacture of such items in Canada now account for much larger proportions of Canada's total imports. As these items have come mainly from the United States, the change in content of Canada's imports has tended to increase the over-all fraction derived from that country. Similarly, imports of textiles and textile products have been a declining part of the total Canadian merchandise imports; even if the United Kingdom and Western European countries now held the same fraction of such Canadian imports, the relative decline of the group would reduce the fraction of Canada's total imports coming from those areas.

The change in the content does not fully account for the shifts in the geographical source of Canada's imports in the past. There have been a number of marked variations in the proportion of particular items derived

from various countries. For certain types of commodities, including cotton textiles, artificial silk and synthetic fibres and products, coal, primary iron and steel, chemicals and books and printed material, the share of Canada's imports coming from the United Kingdom has been smaller in recent years than it was in the late 1920's and much smaller than in the mid-1930's. For quite a number of types of goods, the British share of Canadian imports is at least as high now as it was in the late 1920's including such goods as manufactured wool products, leather products, non-agricultural machinery, electrical apparatus, engines, locomotives and boilers and motor vehicles and parts. Despite these increases, the combination of changes in the content of Canada's trade and the sharp decreases in the British share of Canada's imports of a number of items have resulted in an over-all decrease in the British share of Canadian imports.

Increases in the proportion of particular goods imported from the United States have also contributed to the growth in the total share of Canadian imports coming from that country, but the main factor in this experience has been the change in the content of Canadian imports. There have been a few important decreases in United States' shares of Canadian imports of particular commodities, the most notable being petroleum. Until 1950 crude petroleum was one of the most rapidly increasing parts of the Canadian merchandise imports but a very marked shift had taken place in the source of those imports, from the United States to Latin America and the Middle East. This shift was the most important factor underlying the growth in the fraction of Canada's imports coming from areas other than the United States and the United Kingdom.

Moving from the facts of the situation to the underlying basis is much more difficult. Why does such a large proportion of Canadian imports of machinery and equipment come from the United States when so much of the machinery used by the world originates in the United Kingdom and Western Europe? Why has there been a sharp decrease in the British share of Canadian imports of cotton textiles accompanied by an increase in the share coming from United States? In thinking about these questions distinctions should be made among staple materials and manufactures, machinery and equipment, and manufactured consumer goods which are either durable or highly-styled. For the staple materials and manufactures, such as crude petroleum, tea, oranges, raw wool, raw cotton, cotton dry-goods, cement and steel sheet, it is possible to make easy and rapid substitution among different geographical sources of import. For machinery and equipment the substitution of items from different geographical sources is neither quite so easy nor can it take place quite so rapidly. There are differences in engineering standards among countries. The availability of engineering advice, the service facilities, rapid delivery dates and satisfactory credit arrangements influence the purchase. There is a considerable lag between the time when purchasing decisions are made and when imports take place so that a longer period of adjustment will be required than for staple items. Canadian manufacturing is very largely based

on North American technology; the engineering design is largely done by people with North American training; a substantial part of Canadian industry is under American ownership and control; all of these factors encourage the continued use of North American machinery and equipment rather than that originating in the United Kingdom or Western European countries. For consumer durable items and for consumer items in which there is a considerable style element, Canadians are quite heavily committed to North American commodities and styles. Despite the opportunities of the Canadian market, the entry of European household appliances into the Canadian market has thus far been quite small.

### *Prospects*

It is our expectation that trends in the geographical division of Canada's merchandise imports will be somewhat different in the future than they have been during the past 30 years, at least judging the latter by comparison between the late 1920's and recent years. While the proportion derived from the United States is expected to increase slightly, the fraction coming from the United Kingdom is not expected to fall below the average of 1953-55. The main expected change is a decline in the proportion coming from other areas.

Table 53

## CANADA: GEOGRAPHICAL DISTRIBUTION OF MERCHANDISE IMPORTS

	Percentage from		
	U.K.	U.S.	Other areas
	<i>(based on current dollars, except for 1980, which is based on 1955 prices)</i>		
1900 (fiscal)	25.6	49.2	15.2
1912 (fiscal)	22.4	63.4	14.2
1929	15.0	68.8	16.2
1934	22.1	57.2	20.7
1937	18.2	60.6	21.2
1950	12.7	67.1	20.2
1953	10.3	73.5	16.2
1954	9.6	72.3	18.1
1955	8.5	73.3	18.2
Prospects			
1980	9.6	76.3	14.2

These views are arrived at by considering the prospective content of Canadian imports (see Table 32), and the division of the Canadian imports of each commodity group among various geographical regions. The proportion of Canada's imports consisting of household appliances and electronic equipment, miscellaneous manufactured consumer goods, machinery and equipment, basic chemicals and industrial materials is expected to be larger in the future

than at present. For the consumer durables, it appears unlikely that any major decline will take place in imports of finished goods and parts and components derived from the United States. The Canadian market for machinery and equipment and basic chemicals is the most important opportunity for expanded British and European supplies. It is our belief that the British and European countries will at least hold their present shares in the Canadian imports of such items, perhaps increasing these slightly. It is well known that these areas have a large number of excellent chemical and machinery products, which are comparatively cheap. The British share of the Canadian machinery market is now larger than it was 30 years ago. The Canadian market for British and European machinery and chemical products is not an easy market; it demands service, engineering advice and rapid deliveries; yet it is not a very large market by world standards. In Canada, there are strong predilections toward North American machinery arising from the training and knowledge of those who design plants for Canadian use, from the difficulties of mixing equipment coming from various countries, from the ownership and control relationships and from the types of finished products which are produced. However, it is our judgment that there are sufficient attractions in the market and that enough effort will be made that the British and European countries will at least hold their present shares of the rapid increasing total of Canadian imports of machinery and chemicals. This is the main factor which accounts for the optimistic view of their over-all shares in the Canadian market.

Canadian imports from the United Kingdom and Western Europe are not expected to increase quite as rapidly as the total imports of machinery and chemicals because of a number of offsetting factors. Imports of textile and leather products will comprise a smaller part of the total Canadian merchandise imports. The British and European shares in these imports are still considerable. However, even if these areas continued to hold their present shares, the relative decline in Canada's imports of such items will reduce the fraction of Canada's total imports coming from these areas. The same argument applies to household china and cutlery, automobiles and glass. Further, it appears doubtful that the British and Western European share of the Canadian imports of textiles will be as large in the future as at present.

Aside from imports of manufactured goods from Western Europe, the proportion of Canada's imports coming from areas other than the United States and the United Kingdom depends mainly on trends in imports of tropical and semi-tropical foods, petroleum and a few raw materials such as wool, rubber, bauxite and tin. Imports of food are expected to become a smaller part of the total Canadian merchandise imports. The proportion of such items derived from areas other than the United States is not expected to increase very sharply. Thus, the relative decline of food imports will reduce the fraction of total Canadian imports coming from those areas. The general judgment expressed in the study of Canada's energy requirements is that the imports of petroleum and petroleum products will increase much less rapidly

than the total of Canadian merchandise imports in the future. This is the most important single factor tending to reduce the fraction of Canadian imports coming from Latin America. Imports of many industrial materials, such as wool and rubber, are expected to grow less rapidly than the average of Canadian merchandise imports, again resulting in relative reduction in the total Canadian imports coming from areas other than the United States and the United Kingdom. These factors are the basis of our judgment that a smaller proportion of Canadian merchandise imports will come from areas other than the United States and United Kingdom, and that the main burden of the relative decline will fall on areas other than Western Europe.

The implied values of merchandise imports in 1980 are set out in Table 54.

Table 54

**PROSPECTIVE VALUE OF MERCHANDISE IMPORTS<sup>a</sup>  
FROM VARIOUS GEOGRAPHIC REGIONS**

	Millions of 1955 dollars			Millions of 1949 dollars		
	U.S.	U.K.	Other areas	U.S.	U.K.	Other areas
1953	3,046 <sup>b</sup>	463 <sup>b</sup>	701 <sup>b</sup>	2,856	434	657
1955	3,280	405	855	3,045	376	794
1980	8,053	1,015	1,501	7,304	940	1,443
1980 as % of 1953	264	219	214	—	—	—
1980 as % of 1955	245.5	250.6	175.5	—	—	—

<sup>a</sup>Adjusted to *National Income* concepts.

<sup>b</sup>1953 dollars.

*Part B: Prospective Geographical Distribution of Imports of Invisibles or Services*

To complete a forecast of the import side of Canada's current balance of payments position, some estimates of the geographical distribution of Canada's invisible or service imports are required. Our judgment on this question is summarized in Table 55. In 1955, a shade less than three-quarters of Canada's imports of services came from the United States, almost 12% from the United Kingdom and about 14% from the rest of the world. In the future, the fraction derived from the United States is expected to increase slightly, while that coming from the United Kingdom is expected to be about the same and that from the rest of the world is expected to decrease a little. These conclusions have been reached by analysis of the prospective geographical distribution of each of the main types of imports of services, applying the distribution to the grand total of imports of each type of service, as set out in Section XVI of this chapter.

*Tourist and travel services*

For a very long period the United States has been the main area to which tourist and travel payments by Canadians have been made (see table 56), the fraction being almost three-quarters in the late 1920's, and about 85% between 1950 and 1953. Our expectation is that the fraction will be smaller in the future, in the range of 75% to 79% by 1980. The proportion of Canadian tourist and travel expenditures to the United States was unusually large in the postwar years; since 1952 it has been falling. The facilities for long-range travel have been improved tremendously, and marked improvements are expected in the future. The trend is for Americans to travel increasingly to other continents. Travel by Canadians to the United Kingdom fell very sharply between the prewar and postwar years (see Table 56), but such travel has been accounting for an increasing fraction of the total payments to foreigners since 1950. We expect this trend to continue. The fraction of Canadian travel expenditures paid to areas other than the United Kingdom and the United States has increased in recent years, and has actually been larger than it was in the later 1920's. The fraction is expected to increase further.

Table 55

**GEOGRAPHICAL DISTRIBUTION: PROSPECTIVE CANADIAN  
IMPORTS OF INVISIBLES OR SERVICES<sup>a</sup>**

	Value in millions of current \$ and prospects in 1955 \$				% of invisibles from		
	<i>Total</i>	<i>U.S.</i>	<i>U.K.</i>	<i>Other</i>	<i>U.S.</i>	<i>U.K.</i>	<i>Other</i>
1929	685	461	167	57	67.3	24.4	8.3
1937	637	417	161	59	65.4	25.3	9.3
1950	1,379	1,137	157	85	82.4	11.4	6.2
1953	1,608	1,227	222	159	76.3	13.8	9.9
1955	1,866	1,379	222	265	73.9	11.9	14.2
1980	4,575	3,473	551	551	75.9	12.0	12.0

<sup>a</sup> Excluding official contributions and contributions of military equipment to NATO countries in all years; also excluding inheritance funds in all years and migrants' funds from 1950 on.

SOURCE: D.B.S., *Canadian Balance of International Payments*, 1926 to 1948, and 1955 issue, adjusted per note <sup>a</sup>.

Table 56

SELECTED HISTORICAL DATA: GEOGRAPHICAL DISTRIBUTION OF IMPORTS OF INVISIBLES<sup>a</sup>

	(percentage)						Assumed
	1927	1929	1937	1950	1953	1955	1980
Tourist and travel payments to:							
U.K.....	20.0	18.5	18.3	8.4	8.4	9.3	11
U.S.....	72.0	75.0	74.7	85.3	84.1	80.8	77
Other countries.....	8.0	6.5	7.0	6.3	7.5	9.9	12
Interest and dividend payments to:							
U.K.....	39.3	35.1	28.1	11.4	14.1	13.4	11
U.S.....	58.8	62.7	69.8	86.5	82.6	82.3	84
Other countries.....	1.9	2.2	2.1	2.1	3.3	4.3	5
Freight and shipping payments to:							
U.K.....	10.1	9.2	31.3	11.9	11.2	11.5	12
U.S.....	77.1	79.2	49.6	80.0	79.1	70.3	70
Other countries.....	12.8	11.6	19.1	8.1	9.7	18.2	18
Other current debits to:							
(excluding official contributions, military contributions to NATO countries, inheritances and migrants' funds)							
U.K.....	17.5	17.6	15.3	12.7	19.7	12.6	14(+)
U.S.....	60.0	60.0	65.7	77.7	62.2	63.9	70
Other countries.....	12.5	22.4	19.0	9.6	18.1	23.5	16(—)

<sup>a</sup> Excluding official contributions and contributions of military equipment to NATO countries in all years; also excluding inheritance funds in all years and migrants' funds from 1950 on.

SOURCE: D.B.S., *Canadian Balance of International Payments*, 1926 to 1948, and 1955 issue, adjusted per note <sup>a</sup>.

*Interest and dividends*

Among Canada's imports of services one of the largest changes in geographical distribution of Canadian payments relates to interest and dividends. In 1929, 35% of the Canadian interest and dividend payments to foreigners were made to United Kingdom residents and 63% to United States residents. In 1955 the United Kingdom share was 13.4% and the United States fraction 82.3%. (See Table 56.) This change primarily reflects a decrease in the United Kingdom fraction of Canada's gross liabilities to foreigners and an increase in the United States proportion. (See Table 57.) In view of the current public interest in foreign, particularly American, investment in Canada, it is tempting to project a further marked increase in the proportion of Canadian interest and dividend payments made to residents of the United States. It is our belief that some increase in the United States fraction is to be expected but this should be small.

Comparing 1950 and the late 1920's, there was a very large shift in the proportion of Canadian indebtedness away from the United Kingdom and toward the United States. (See Table 57.) However, the size of this shift was

unusually large and mainly due to the redemptions of British-owned securities which was part of the war financing arrangements. In recent years when there has been a substantial increase in Canada's gross international indebtedness, roughly comparable rates of increase took place in the Canadian liabilities to Americans, to the British and to the rest of the world, the latter mainly reflecting indebtedness to Europeans. While the share of Canada's indebtedness owned by the British may be expected to increase a little less rapidly than that owned by Americans, it seems unlikely that the American share would increase very much beyond the present levels, assuming no major international conflict. Also the European investments in Canada are expected to grow comparatively rapidly. The growth in British and European investment in Canada will be encouraged by the investment opportunities in this country, by the European interest in supplementing their sources of basic raw materials, by British and European efforts to sell products in Canada and by the reinvestment of earnings of Canadian enterprises which are owned by the British and Europeans at the present time.

Table 57

### HISTORICAL DATA, GEOGRAPHICAL DISTRIBUTION, FOREIGN CAPITAL INVESTED IN CANADA

At end of year	Percentage of foreign investment in Canada by:			Percentage of interest and dividend payments to foreigners paid to:		
	U.S. residents	U.K. residents	Others	U.S. residents	U.K. residents	Others
1926	53.3	43.9	2.8	57.5	40.4	2.1
1930	61.2	36.3	2.5	64.7	33.0	2.3
1933	61.0	36.4	2.6	71.2	27.3	1.5
1939	60.0	35.8	4.2	71.9	25.5	2.6
1946	71.8	23.6	4.6	80.1	17.3	2.6
1950	75.6	20.2	4.2	86.5	11.4	2.1
1951	76.6	18.7	4.6	84.9	12.7	2.4
1952	77.0	18.1	4.8	83.3	13.6	3.1
1953	77.4	17.5	5.1	82.6	14.1	3.3
1954	77.2	17.2	5.6	81.6	14.7	4.3
1955	76.7	17.3	6.0	82.3	13.4	4.3

SOURCE: Computed from D.B.S., *The Canadian Balance of International Payments*, 1926 to 1948, and D.B.S., *The Canadian Balance of International Payments*, 1955.

#### *Freight and shipping*

Except during the 1930's, more than 70% of Canadian payments to foreigners for freight and shipping services have been made to United States residents; in the late 1920's and between 1950 and 1953, the American fraction was close to 80%. These payments have been made mainly for rail and truck services associated with Canada's imports from the United States. The trans-

portation of such bulky commodities as coal and petroleum have typically accounted for a large fraction of the total. In recent years, as imports of coal and petroleum products have decreased relative to the total of Canada's merchandise imports, the American share in Canadian payments for freight and shipping services has decreased. In normal years somewhere between 20% and 25% of Canadian payments for foreign shipping services have been made to the British and other Europeans, mainly for ocean transport of merchandise entering Canada from non-United States sources. In addition, foreigners have provided some small share of the coasting trade in Canada.

It is our expectation that the American share in Canadian payments to foreigners for shipping services will be about constant at 1955 levels; that is, 70% of the total. Of the remainder, it is our judgment that 40% will be paid to British residents and 60% to residents of other countries. As the proportion of Canada's total merchandise imports coming from the United States is expected to increase, this would tend to enlarge the fraction of foreign-supplied shipping services which Americans render to Canada. However, bulky imports of coal and petroleum products from the United States are expected to become even less important in the future than they are at the present, a factor which tends to reduce the supply of American freight services to Canadians. Regarding the division of the freight and shipping services provided to Canadians by the British and other countries, we may simply note that the usual situation is for the non-British share to be larger. This was so in 1927, in 1929 and again in 1955. The British share was larger during the 1930's and the early postwar years but this is taken to be an abnormal experience.

#### *Other current debits*

The other current debits range from business and personal services and movie rentals to Canadian government payments to foreigners in connection with diplomatic representation abroad and the maintenance of Canadian troops abroad. In this treatment of the group, official contributions and contributions of military equipment under the NATO arrangements have been deducted, as have the inheritances and migrants' funds, all these ordinarily being included in a balance of payments statement. For the group as it is being treated here, the American share in most years ranges between 60% and 65%, reflecting the fact that payments for business services, royalties and movie rentals are predominantly made to Americans. The British share has ranged from 12% to 18% in normal years and the share provided by other countries has ranged from 12% to 18% also. In recent years, the share paid to other countries has been unusually large because of the payments associated with Canadian forces stationed in Western Europe. In our judgment, the American share in this group will likely increase a little in the future while the share provided by other countries (excluding the United Kingdom) will probably fall, the latter mainly because of a relative decline in the importance of Canadian payments to Europeans associated with the

Canadian forces there. It has been assumed that the British share will be somewhere between 12% and 16% of the group.

*Part C: Summary of Prospects: Geographical Distribution of Canadian Imports of Goods and Services*

Table 58 draws together our conclusions regarding the prospective geographical distribution of Canadian imports of merchandise and invisibles. This shows that some further increase is expected in the proportion of Canadian imports of goods and services derived from the United States and that a small increase is expected in the fraction coming from the United Kingdom, while those derived from other areas will decline relatively in value. The most important factor underlying the smaller fraction coming from other areas is the expectation that imports of petroleum and products will decline substantially as a fraction of total Canadian merchandise imports. The most important factor underlying the expected (slight) improvement in the U.K. share is the comparatively rapid growth expected in Canadian imports of machinery and equipment and the expectation that the British will be comparatively successful in holding their own in this market.

Table 58

**SUMMARY TABLE: PROSPECTIVE GEOGRAPHICAL DISTRIBUTION OF CANADIAN IMPORTS OF GOODS AND SERVICES**

	1955			1980		
	<i>Merchandise imports</i>	<i>Invisible</i>	<i>Total</i>	<i>Merchandise imports</i>	<i>Invisible</i>	<i>Total</i>
<b>A. Value of imports</b>						
1. In 1949 \$, from						
U.S.....	3,045	1,155	4,200	7,304	2,914	10,218
U.K.....	376	186	562	940	455	1,395
Other areas.....	794	221	1,015	1,443	446	1,889
Total.....	4,215	1,562	5,787	9,687	3,815	13,502
2. In 1955 \$, from						
U.S.....	3,280	1,379	4,659	8,053	3,473	11,526
U.K.....	405	222	627	1,015	551	1,566
Other areas.....	855	265	1,120	1,501	551	2,052
Total.....	4,540	1,866	6,406	10,569	4,575	15,144
<b>B. % of value of imports</b>						
1. In 1949 \$, from						
U.S.....	72.2	73.9	72.8	75.4	76.3	75.7
U.K.....	8.9	11.9	9.7	9.7	11.9	10.3
Other areas.....	18.8	14.2	17.5	14.9	11.8	14.0
2. In 1955 \$, from						
U.S.....	72.2	73.9	72.8	76.2	75.9	76.1
U.K.....	8.9	11.9	9.7	9.6	12.0	10.3
Other areas.....	18.8	14.2	17.5	14.2	12.0	13.5

## RECONCILIATIONS AND CONCLUSIONS

### *Imports and Canada's Balance of Payments; Consistency Checks; Other Implications*

To complete this study, three types of question should be answered. First, is the analysis of Canada's imports prospects consistent with other elements of the Commission's work? In particular, what is the relationship of the import and export prospects, and Canada's balance of international payments? Second, the forecasts regarding imports were based on a number of general assumptions which underlay most of the Commission's work. How would imports be altered by different assumptions regarding the rate of growth of the Canadian economy, different structures of prices and different commercial policies? What are the short-run implications of the changes in the import structure? Finally, what is the general picture of Canada's prospective international economic relations emerging from this import study? Are major changes in the structure of the Canadian economy implied? Do serious problems of Canadian economic adjustment emerge? In addition to these three main tasks, one should look back and try to record the biases which may explicitly or inadvertently be built into the study, so that the reader may be on his guard, and be able to modify the conclusions to suit his predilections.

### *I. Imports and Canada's Balance of International Payments; Imports and Other Facets of Canada's Economic Prospects*

#### *(a) The Balance of Payments Forecast*

It will be recalled that the studies of Canada's import prospects and export prospects were carried out independently. In particular the analysis of import prospects paid very little direct attention to exports and to the question of whether Canadian exports of goods, services and securities would provide sufficient foreign exchange to pay for the imports. Indirectly, of course, the export opportunities are implicit in the forecasts of Canadian production, incomes and investment activity. To this extent we should expect similar

trends in the over-all views of future imports and exports, but divergent results are possible.

From these independent studies, what picture of Canada's balance of payments emerges? It is that Canada will import more goods and services in 1980 than she exports — that Canada will continue to be a net importer of capital from abroad, in a balance of payments sense.<sup>1</sup> The summary view has been drawn together in the export study,<sup>2</sup> and is reproduced as Table 59. Under the general forecasting assumptions adopted by the Commission, the net annual foreign investment into Canada, in a balance of payments sense, is expected to average about \$1 billion in 1980, at 1955 prices.

The regional distribution of Canada's imports, developed in Chapter 5 of this study, and of Canada's exports also permit some illustrative figures regarding the prospective current payments situation in 1980 with the United States, the United Kingdom and all other areas combined. These are reproduced from the export study as Table 60. These figures imply a continued Canadian credit balance on current payments account with the United Kingdom, a continued debit balance on account with the United States, and a credit balance in current transactions with all other countries.

#### (b) *Consistency of the Balance of Payments Estimates*

No great significance should be attached to the specific figures for imports and exports and current account balances set out above, but it is relevant to ask whether there is a general consistency between the projected export and import position. In particular, does the order of magnitude for the net capital inflow in 1980 fit with other observations on Canadian economic growth? Later we will consider the question of the mechanism by which imports and exports will be kept in step if either turns out to be significantly different from our forecasts. For the moment take the figures of Tables 59 and 60 as the magnitudes for which consistency is to be considered.

The first question concerns the harmony of the projected exports and the projections of G.N.P. These are questions which have been dealt with by the authors of the respective studies.<sup>3</sup> All that we might reasonably note is that the export study contains the view that Canada faces a particularly favourable set of export opportunities and a rapid development of export supplies during the next 25 years, particularly for minerals. The projected rate of growth of exports is higher in the next 25 years than the average over the last 30 years. Finally, the authors of the projections of G.N.P. and of investment expenditure do not consider that there is any fundamental conflict among the projections of exports, output or investment.

<sup>1</sup>When we speak of 1980, we mean the average position in a five-year period centered on 1980. As the export study provides complete estimates of the prospects only for 1980, nothing specific can be said about the development of the balance of payments in the intervening period.

<sup>2</sup>R. V. Anderson, *The Future of Canada's Export Trade*, Ottawa, 1957.

<sup>3</sup>Anderson, *ibid* and Wm. C. Hood and Anthony Scott, *Output, Labour and Capital in the Canadian Economy*.

The projected imports are mainly derived as implications of Canadian economic growth. On the one hand, the rapid growth in investment in machinery and equipment, and expenditures on consumer durables and miscellaneous manufactured consumer goods imply rapid growth in imports. On the other hand, the development of Canadian fuel resources together with the expected relative improvement in the average competitive position of Canadian manufacturing activities, due to the growth in the Canadian economy, will tend to limit imports. Looking back on the projections, we feel that it is more likely that our estimates will be too small than too large. Some students of the Canadian economy have serious doubts about the improvement in the competitive position of Canadian manufacturing activity relative to foreign sources of supply. The interest and dividends and tourist payments to foreigners may be underestimated, given the basic forecasts of output in the Canadian economy. On the other hand, the projection of imports starts from the comparatively high base of recent years. As to the geographical distribution we may have been somewhat too optimistic regarding those imports to be derived from the United Kingdom and Western Europe, but we believe that these areas must find large additional markets for engineering goods.

Table 59

### SUMMARY OF PROSPECTS, IMPORTS AND EXPORTS OF GOODS AND SERVICES, AND NET FOREIGN INVESTMENT

(billions of 1955 dollars)

	1955	1980
Canadian exports of goods and services .....	5.7	14.1
Canadian imports of goods and services .....	6.4	15.1
Net foreign investment into Canada .....	0.7	1.0
G.N.P. ....	26.8	76.8

Table 60

### SUMMARY OF PROSPECTS, GEOGRAPHICAL DISTRIBUTION OF CANADA'S CURRENT INTERNATIONAL TRANSACTIONS

(millions of 1955 dollars)

Year and area	Exports of goods and services	Imports of goods and services	Current account balance: (—deficit and + surplus)
1955			
With U.S. ....	3.6	4.7	—1.1
With U.K. ....	1.0	0.6	+0.4
With other areas. ....	1.2	1.1	+0.1
Total. ....	5.8	6.4	—0.6
1980			
With U.S. ....	9.8	11.5	—1.7
With U.K. ....	2.0	1.6	+0.4
With other areas. ....	2.3	2.0	+0.3
Total. ....	14.1	15.1	—1.0

NOTE: Using *National Accounts* concepts.

SOURCE: R. V. Anderson, *The Future of Canada's Export Trade*, Ottawa, 1957, Chap. 5. The data presented in the export study have been adjusted in the table above to *National Accounts* concepts.

Providing that the export forecast is accepted, then any required reconciliations of Canada's balance of payments should be done mainly by reducing the imports rather than increasing the exports. We are inclined to treat the export-import position set out in Table 59 as a satisfactory rough indicator of the shape of things to come, given the general forecasting model of the Commission. The rate of net capital inflow (balance of payments sense) of \$1 billion per annum around 1980 is about 1.2% of the projected G.N.P., considerably smaller than during 1956. The ratios of exports and imports to G.N.P. are both expected to decline slightly, trends which have been going on for a fairly long time in the world, even for countries with relatively favourable export opportunities.

In general, the prediction is for Canada in its international economic position to be not fundamentally different from what it now is — a country which remains strongly integrated into the world, particularly the North American economy, exporting mainly primary products. The exports of primary products will shift more toward minerals and to North American markets. Imports will shift gradually toward more manufactured goods, particularly machinery and equipment and consumer durable and parts for their manufacture. It is a picture of a country which is an international debtor, and which will still be a net importer of capital from abroad, though the latter will be of smaller magnitude relatively than it now is. Because the picture of the Canadian economy which results from putting together the import and export studies is roughly consistent with these other views of Canada's economic prospects, we are inclined to let stand the import totals as summarized in Tables 32 and 33.

(c) *Long-Run Mechanism of Balance of Payments Adjustment*

In considering Canadian balance of payments positions, rather than go through further refinement of the export and import projections, it is much more appropriate to ask whether a sufficiently powerful mechanism exists to keep imports more or less in step with exports. It is our reading of Canadian economic history that Canada has not been plagued with persistent balance of payments difficulties during this century. This is partly a matter of good fortune, partly a matter of similar timing of booms and depressions in Canada and abroad; but partly it is a matter of the many and powerful ways in which imports have been adjusted in the Canadian economy. There are three important channels of this adjustment. First, variations in Canadian economic growth, whether caused by changes in export opportunities or other factors, have resulted in corresponding fluctuations in this very large group of imports. Second, quite a number of Canada's imports have fairly high income elasticities of demand in Canada. For example, the growth of Canadian demand for a number of such consumer goods as automobiles and other durables tends to fluctuate more than proportionately to Canadian incomes. These items have a high import content. Third, over a broad range of Canadian imports there is a fairly close substitutability between imported and domestic sources of supply. If exports go less well, a limited substitution of domestic for imported

goods over a broad range of products can lead (and in the past has led) to quite a substantial adjustment in the level of imports relative to Gross National Product.

(d) *Consistency of the Import Study and Other Studies for the Commission*

In addition to the possibility of being out of step with the forecasts of national output, investment, and exports, the import study in particular matters could be seriously inconsistent with other of the Commission studies, such as those concerned with secondary industries,<sup>4</sup> service industries<sup>5</sup> and the growth of government activities. Somewhat abbreviated efforts have been made at reconciliation of the import prospects with these other studies. A very large part of Canada's imports are more or less in competition with the output of Canadian secondary industry. Thus a growth in secondary industry relative to Gross Domestic Product may mean a decline in imports relative to Gross Domestic Product. On the prospects in this matter, the general paper on secondary industries and the import study are in close agreement; in both it is expected that the typical situation will be some small improvement in the competitive position of Canadian manufacturing relative to foreign sources of supply; in both, exceptions to this rule have been pointed out. Of course, this harmony of views may simply mean that we are both wrong.

In the study of the service industries the view was expressed that a comparatively rapid growth will take place in the proportion of the labour force employed in service industries, and that there might be a small relative growth in the value of output of the service industries relative to Gross Domestic Product. This implies a decline in the size of Canada's international trade relative to the gross domestic output, a conclusion of both the export and import studies.

## II. *The Effects on Imports of Changes in Economic Conditions*

Almost all of the speculations about import prospects contained in this study have been based on a special set of assumptions about the average rate and path of Canadian economic growth, and about commercial policy and price structures. One of the most useful tasks which could be undertaken now is an examination of the effects on imports of changes in economic conditions. For example, what effect on imports will follow from faster or slower rates of economic growth, from a Canadian economic growth which differs in content, from fluctuations in income and employment, and from specified changes in Canadian commercial policy. Unfortunately, limitations of time preclude more than a few sketchy remarks on these matters.

(a) *Different Assumptions about the Rate of Canadian Economic Growth*

As with most studies prepared for the Commission, the bulk of the work on import prospects has been based on a growth in Canadian output which

<sup>4</sup>D. H. Fullerton and H. A. Hampson, *Canadian Secondary Manufacturing Industry*, Ottawa, 1957.

<sup>5</sup>The Bank of Montreal, *The Service Industries*, Ottawa, 1957.

was the average of the high and low projections of G.N.P., as set down in the Commission's study of output, labour and capital. Moreover, the terms of reference to the Commission ruled out substantial fluctuations in income and employment, an assumption which makes the growth of Canadian indebtedness to foreigners and Canadian interest and dividend payments to foreigners larger than they would otherwise be.

As a first approximation, let us ask what level of imports of goods and services would be associated with the high projection of G.N.P. and with the low projection, as these are set out in the study of output, labour and capital. In 1955 dollars, the high projection is \$82.1 billion, the low is \$70.3 billion, and the middle (which was the basis for projections in Chapters 4 and 5) was \$76.8 billion. Undoubtedly the level of imports will vary directly with the level of Canadian national output. But would a 5% increase or decrease in the projected level of output in 1980 produce more or less than a 5% increase or decrease in the projected imports of goods and services?<sup>6</sup> It is our belief that a level of Canadian output 5% higher or lower than the basis which was used for our projections will result in less than a 5% increase or decrease in the projected level of imports of goods and services. In the language of economists, this means that we believe the long-run marginal propensity to import is less than the long-run average propensity to import for the Canadian economy.

Our judgment on this matter is based on the following considerations. First, the more rapid is the growth in Canadian output, the more rapid must be the growth in the stock of capital, including the stock of machinery and equipment. It was shown in the study of output, labour and capital that the proportion of G.N.P. which will likely be devoted to new investment in machinery and equipment will vary directly with G.N.P.<sup>7</sup> New investment in machinery and equipment has a very high import content. Thus, we have at least one influence which tends to make imports vary more than proportionately with output in the long run; *i.e.* on this account, the faster the rate of growth of Canadian G.N.P. the larger will be the ratio of imports to G.N.P.

Second, the more rapid is the growth in Canadian output, the more rapid will be the growth in Canadian consumption expenditures. Is it likely that higher consumption will be associated with a shift in consumer expenditure toward items which have higher than average import content? We do not believe so. Items for which consumption increases more than proportionately with income include some things, like consumer durables and sporting equipment, in which imports are comparatively large; but the list also includes

<sup>6</sup>We are not talking of a sudden boom or slump in Canadian economic activity in 1980 compared with the average projected 1980 output. Rather we are concerned with a more or less persistent and gradual increase in output during the next 25 years which is higher or lower than the average used as the basis for the projections in Chapters 4 and 5. As it will be argued below, short-run fluctuations in Canadian economic activity tend to produce *more* than proportionate changes in Canadian economic imports of goods and services.

<sup>7</sup>See Hood and Scott, *op. cit.*, Chap. 6.

a wide variety of things, such as food processing activities, recreational services and health expenditures, which have lower than average import content.<sup>8</sup> Thus we do not expect the change in consumption patterns associated with more or less rapid growth in Canadian output to have any marked over-all effect on the ratio of imports to Canadian output, though the content of Canadian imports will be altered.

Third, a very large part of Canada's imports are more or less competitive with the output of Canadian secondary manufacturing industries. In competition with North American sources of supply, the main competitive deficiency of the Canadian industry is the smallness of scale of the Canadian market.<sup>9</sup> We believe that the more rapid the growth in the Canadian market, the greater the degree of improvement in the competitive position of Canadian manufacturing activity. Thus, on this account, more rapid economic growth would be associated with a decrease in the ratio of imports to Canadian national output, and less rapid economic growth would be associated with a larger ratio of imports to Canadian national output.

It is our belief that this third factor will be a more powerful influence than the first mentioned; thus, the conclusion that a 5% higher or lower output in 1980 will be associated with something less than a 5% higher or lower level of imports of goods and services. However, it is our belief that the change in the ratio of imports to gross national output, for the range of output fluctuation indicated by the high and low forecasts of G.N.P., will be small. Some illustrative figures are set out in Table 61.

Table 61

### ILLUSTRATIVE FIGURES: VARIOUS FORECASTS OF G.N.P. AND IMPORTS

(\$ billions)

	Forecasts of G.N.P.			Forecasts of imports of goods and services		
	High	Middle	Low	High	Middle	Low
	(----- 1955 dollars -----)					
1955 actual		26.8			6.4	
1980	82.1	76.8	70.3	16.3	15.1	13.9

#### (b) *Effects on Imports of Differences in Price Structures and in Canadian Commercial Policy*

The main projections of imports were based on the structure of prices which existed in 1949, (except that conversions were made to 1955 dollars for studying the balance of payments position), and were based on the existing Canadian commercial policy in 1955, in the sense of the duty rates and administrative procedures which ruled in that year. What are the prospective changes in the structure of prices, and what modifications to the import

<sup>8</sup>See David W. Slater, *Consumption Expenditures in Canada*, and Chaps. 2 and 5 of this study.

<sup>9</sup>See Fullerton and Hampson, *op. cit.*

projections should be made accordingly? How would various changes in commercial policy alter imports?

Considering the price structure first, the question we have asked is in part the very old one about trends and prospects of Canada's international terms of trade, *i.e.* the course of export prices relative to import prices. This matter has been dealt with in Chapter 2 of *Output, Labour and Capital in the Canadian Economy*, and has been discussed in *The Future of Canada's Export Trade*.<sup>10</sup> Our general view is that Canada's terms of trade move within rather narrow limits in the long run, and that they have been relatively favourable in recent years. In the future it is thought likely that Canada will have good markets for its export potential and that Canadian manufacturers will face comparatively cheap sources of foreign supplies of manufactured goods. Nevertheless it is thought unlikely that there will be large sustained improvements in Canada's terms of trade from those which have existed in recent years. This general judgment implies no strong case for modification of our view of import prospects on the grounds of expected changes in Canada's terms of trade.

The question still remains as to whether the internal structure of import prices might be altered, such alterations producing significant differences in the content of imports and the prospects for particular types of manufacturing activities in Canada. We could not answer this question without a great deal of study which time did not permit. We can only record a general belief that there is a basic stability to the long-run structure of commodity prices, particularly for those which enter into international commerce.<sup>11</sup>

Turning now to the consequences of different commercial policies, we must very largely duck the issue. First, a special study of Canadian commercial policy was carried out for the Commission.<sup>12</sup> Second, the question can only be answered for specific changes in commercial policy; given the complicated structure of that policy, quick answers to questions about changes are likely to be irresponsible ones.

With the above cautions in mind, two or three fairly obvious points can be made. Most of Canada's secondary industry is protected by the tariff against foreign supplies, the effective protection ranging from close to zero to very high levels.<sup>13</sup> There are quite a number of instances in which the whole of the effective protection provided by the tariff is not used. Any reduction in duties will encourage a substitution of imports for domestically produced goods, but small changes in protection (such as those which were negotiated in 1949 and 1951) will produce comparatively small substitutions, partly because the full protection is not now used by all producers. The principles which might be used in choosing candidates for increases and decrease protection are discussed at some length in the study of Canadian commercial policy.<sup>14</sup>

<sup>10</sup>Hood and Scott, *op. cit.*, and Anderson, *op. cit.*

<sup>11</sup>See F. D. Graham, *The Theory of International Values*, Princeton University Press, 1950.

<sup>12</sup>J. H. Young, *Canadian Commercial Policy*, Ottawa, 1957.

<sup>13</sup>C. L. Barber, "Canadian Commercial Policy", *CJEPS*, Nov. 1955.

<sup>14</sup>Young, *op. cit.*

*(c) Short-Run Fluctuations in Canadian Output and Imports*

While the terms of reference of the Commission's work assume that there will be no major fluctuations in economic activity, some business cycle fluctuations will occur in the future. Whether these are large or small depends on external conditions and internal Canadian policy. As regards imports and economic fluctuations, two types of question may be asked. First, what has been the impact on imports of fluctuations in demand for goods and services in Canada, and in what way has the Canadian import structure conditioned fluctuations in Canadian output? Second, if Canada faces fairly large potential fluctuations in income and employment, what limitations on Canadian stabilization measures or what problems arise out of Canada's import structure?

Let us recall our historical experience of economic fluctuations and imports. Recent work has established quite clearly that fluctuations in Canadian output have been slightly smaller than comparable fluctuations in output in the United States; further there has apparently been a small decline in the relative amplitude of Canadian as compared with United States fluctuations.<sup>15</sup>

There is convincing evidence that fluctuations of Canadian imports of goods and services have been larger than fluctuations in the aggregate demand for goods and services in Canada, thus, Canadian output has fluctuated less than the aggregate demand for Canadian output and imports combined. In periods of extraordinary boom, the ratio of imports to Canada's G.N.P. increases; in periods of decline, the ratio falls.

It should be recalled also that Canada did not have a balance of payments problem, in the narrowest technical sense, during the Great Depression of the 1930's. By this we mean that Canada did not find herself with large persistent losses of foreign exchange reserves nor with large persistent depreciations of the Canadian dollar in foreign exchange markets. Canada was in fact an exporter of capital throughout much of the 1930's. However, we should also remember that the very large payments to service foreign debt, together with the expected large increases in imports which would accompany vigorous recovery measures in Canada acted as a more or less persistent limitation on recovery measures in Canada. To put the matter somewhat crudely, low levels of income and employment were the price of avoiding deficit balance of payments positions.

The reasons for more than proportionate fluctuations in Canadian imports of goods and services than in the sum of Canadian G.N.P. plus imports are not completely worked out as yet, but several influences which contribute to this phenomenon are clear. (See Chapter 3 of this study.) First, many of those types of expenditure in Canada which fluctuate more than proportionately

<sup>15</sup>See Irving Brecher and S. S. Reisman: *Canada-United States Economic Relations*, Ottawa, 1957. The author of this import study has also been privileged to read the preliminary results of a study of these matters by G. R. Rosenbluth of Queen's University, the results of which will be published shortly, and a paper by D. Smith, prepared for the Bank of Canada during the summer of 1956.

to Canadian G.N.E. appear to have higher than average import content. For example, new investment in machinery and equipment, expenditures on consumer durables and travel, and some types of inventory holdings fluctuate cyclically more than the total G.N.E. These items, particularly machinery and equipment, consumer durables and tourism have much higher than average import contents. Thus, imports would tend to fluctuate more widely than G.N.E. on this account alone. Second, to the extent that Canada's indebtedness to foreigners consists of equities, the dividend payments to foreigners would tend to fluctuate more than disposable personal income in Canada. Third, there is quite an accumulation of evidence which suggests that the import shares of the Canadian market for particular types of goods tends to increase in times of boom and fall in times of depression. This is partly due to the structure of the Canadian tariff, including the specific duties which are embodied in the schedules. For example, despite a long-run trend of decrease in the proportion of the Canadian market for primary iron and steel products supplied by imports, there was a very sharp increase in the imports of such items between 1955 and 1956. Similar examples can be cited in other fluctuations and for a fairly broad range of Canadian manufacturing activity.

Does the import forecast and the other work by the Commission suggest any marked change in the short-run fluctuations of imports to be expected in the future? The indications are that an even larger part of Canada's indebtedness to foreigners will consist of equities; thus that proportion of Canada's debt service which adjusts quickly to fluctuations in Canadian economic activity will be increased. For any given degree of fluctuation in Canadian economic activity, this factor tends to produce an even greater relative fluctuation of Canada's imports of goods and services in the future than has been experienced in the past. The proportion of Canada's G.N.E. which will be accounted for by new investment in machinery and equipment and consumer durables will also probably increase, another factor tending to widen the fluctuations of imports associated with fluctuations in Canadian G.N.E. No fundamental change is expected in the pattern of cyclical fluctuations in the import shares of the Canadian market for particular goods. Nor is any fundamental change expected in the role of built-in stabilizers in the Canadian economic policy, but this is a matter of government policy. Our judgment then is that imports may become slightly more responsive to fluctuations in the total of G.N.E. plus imports than they now are.

The other question which we posed concerns the implications or problems which Canada's import position implies for economic stabilization measures in Canada, assuming that somewhat larger potential fluctuations are encountered in the future than were experienced in 1949, 1951 or 1954. Suppose that Canada experiences a substantial fluctuation in external demand, and that this tends to reduce the level of income and employment in Canada significantly. Suppose that fairly vigorous stabilization measures are proposed in Canada. May these measures imply balance of payments problems for Canada, because of the larger imports which will be associated with the

stabilization? Do various types of stabilization measures have different implications for imports?

Without pretending to fully answer these questions, the import study does suggest a few relevant points. First, there is no question but that almost any type of stabilization measures in the Canadian economy will tend to sustain imports. However, measures which would encourage relatively certain types of expenditures, such as investment in structures, consumption of food and most types of services would imply smaller increases in imports than a relative encouragement of other types of expenditure, such as investment in machinery and equipment and consumption expenditures on durable equipment. Secondly, while stabilization measures may stimulate imports, the balance of payments problems may be small and are certainly amenable to solution, through the use of short-term borrowing, drawing on exchange reserves, fluctuations of exchange rates and so on.

### *III. Conclusions*

This study is mainly an essay on the implications for Canadian imports of the pace and pattern of economic growth which has been pictured in the various Commission studies, though, of course, the continued opportunity to import goods and services on comparatively favourable terms is itself a condition of the prospective economic growth. The general story which emerges is one of a rich economy becoming richer, but of an economy which is not expected to change in any fundamental sense in its international economic relations during the next 25 years. The view is that imports and exports of goods and services will grow a little more slowly than Canada's G.N.P., that Canada will probably be continuing to import capital 25 years hence, that some small increase in domestic manufacturing activity relative to imports of manufactured goods will be the typical story, but one to which there will be exceptions. It is also a picture of further integration of the Canadian into the North American economy, but with imports from other areas of the world continuing to be attractive to Canadians.

## **APPENDICES**



## *Appendix A*

### **CLASSIFICATIONS OF IMPORTS**

ASIDE FROM the published classifications of Canadian imports, such as those found in *Trade of Canada*, *Canada's Balance of International Payments* and the *Canadian National Accounts*, two other classifications have been used in this study. The first is a minor regrouping of the main published statistics of imports as found in *Trade of Canada*, the other is an attempt at building a functional classification of Canada's imports.

#### *Minor Regrouping of the Published Import Statistics*

The results of this regrouping are found in Appendix D, Tables I, II, III and IV. The commodity component classification which is the main system used in *Trade of Canada* provides information on imports for nine main groups, which are in turn divided into more than 100 sub-groups. For example, the main groups include Agricultural and Vegetable Products, Animals and Animal Products. The Agricultural and Vegetable Group in turn is divided into such sub-groups as Fruits, Nuts, Vegetables, Grains. The raw material for our regrouping was the sub-group.

What we wanted to do was to pull together sub-groups which had more or less similar end uses. For example, we wanted a group of imports which were used mainly as food, drink and tobacco. Thus we wanted to delete from the Agricultural and Animal Groups those sub-groups for which the main use was other than food, drink and tobacco, *i.e.*, such items as rubber, furs, hides and leather products. The attraction of using the sub-groups of the published statistics as the building blocks for this reclassification is that the classifications by geographical source and the D.B.S. work on import prices can be reclassified also, without labour far beyond the scope of this study.

The stub of Appendix D, Table I, is largely self-explanatory and permits reproduction of the reclassification. The only points which require comment are:

(i) While it is very crude, the only items deleted from the Agricultural and Vegetable Products and Animals and Animal Products in building a group, (mainly) Food, Drink and Tobacco products, were (a) Furs; (b) Hides and Skins; (c) Unmanufactured Leather and Manufactured Leather Products; (d) Rubber and Products.

(ii) Primary Iron and Steel was defined to include: (a) Pigs, Ingots, Blooms and Billets; (b) Ferro-Alloys; (c) Bars and Rods, including Rails; (d) Sheets, Plates, etc., including Band and Hoop; (e) Structural Iron and Steel; (f) Castings and Forgings.

(iii) The Other Iron and Steel, excluding Primary Iron and Steel group, is a residual group arrived at by deducting from total imports of Iron and Steel Products all those groups specifically listed in the table, including Primary Iron and Steel as defined above.

Considerable time was saved in the regrouping by drawing on a classification of imports which has been published regularly in the *Statistical Summary* of the Bank of Canada for many years. The Bank kindly made their worksheets available to us.

### ***Functional Classification of Imports***

What we call a functional classification of imports involved a much more fundamental piece of work. The concepts and problems involved in classifying imports by end use are discussed in Appendix B. The basic building block is the individual item as recorded in *Trade of Canada*. The intent was to sort out the imports in so far as this could readily be done from the trade statistics, putting together groups of imports which could be closely related to various types of domestic economic activity.

It would take too much space to completely reproduce the stub of the worksheets involved in this reclassification. These may be obtained from the author. What follows is an indication of the main items assigned to each group.

**List of Main Items only Assigned to Various Functional Classes of Canadian Imports**

<i>Item</i>	<i>Trade of Canada Groups or Import Code Numbers</i>
Food and food materials	
Agricultural and vegetable products	
Animals and animal products	
Less	
Gums and resins . . . . .	1571-84
Alcoholic beverages . . . . .	1504-60
Plants, shrubs and trees . . . . .	1646-69
Rubber products . . . . .	1680-1720
Tobacco and manufactures . . . . .	1776-78
Seeds . . . . .	1741-76
Furs . . . . .	2155-81
Hair and bristles . . . . .	2191-95
Hides and skins . . . . .	2200-04
Leather, unmanufactured . . . . .	2210-26
Leather, manufactured . . . . .	2231-41
Beverages and tobacco	
Clothing, personal furnishings, textiles, furs and leather products	
Fibres and textiles . . . . .	Whole group
Furs . . . . .	2155-81
Hides and skins . . . . .	2200-04
Leather, unmanufactured and manufactured . . . . .	2210-41
Dyeing and tanning materials . . . . .	8091-8115
Pocket books, etc. . . . .	9077
An estimate of clothing share of tourist purchases	
A list of such minor items as buckles, belts, but- tons, bathing shoes, and rubber clothing	
Furniture, appliances, household electronic equipment	
Refrigerators . . . . .	9078, 90, 79, 9091, 9092
Cooking stoves . . . . .	5715-18
Space heating and cooking equipment, n.o.p. . . . .	5723
Heating and cooking apparatus, n.o.p., and parts . . . . .	5724, 5725
Space heaters, oil . . . . .	5728
Household machinery . . . . .	5441-53
Furniture, wood . . . . .	4151
Furniture, metal . . . . .	5692
Radio tubes . . . . .	6166
Radio parts . . . . .	6175
Radio and TV sets . . . . .	6173, 6174
Radio tube parts . . . . .	6176
Veneers . . . . .	4075-78
An estimate of share of tourist purchases	

<i>Item</i>	<i>Trade of Canada Groups or Import Code Numbers</i>
<b>Miscellaneous consumer goods</b>	
(a) Durable	
Amusement and sporting goods . . . . .	9001-19
Musical instruments . . . . .	9110-22
Cutlery . . . . .	5371-77
Hollow ware . . . . .	5604, 5, 6, 7
Bicycles, n.o.p., and parts; tricycles . . . . .	5651, 5670, 5652, 5664
Guns and parts . . . . .	5696-9
Electro-plated ware . . . . .	6082
Clocks and watches . . . . .	6131-3; 6135-8
Tableware of china . . . . .	7046
Jewellery . . . . .	9073
Spectacles and eye-glasses . . . . .	9082, 3
Incidental tourist purchases, except clothing, furniture and appliances and auto parts	
Miscellaneous goods	
A list of such smaller items as sporting equip- ment and parts, glass tableware, brushes, fans, door mats, luggage, cameras	
(b) Perishable	
Books and printed matter . . . . .	4261-4311
Drugs and pharmaceuticals	
Lamp bulbs . . . . .	7084
A list of such smaller items as household paper goods, batteries, fuses, perfumes and soap.	
<b>Autos, trucks and parts</b>	
Engines, automobile . . . . .	5242
Engines, truck . . . . .	5245
Autos, freight and passenger . . . . .	5641-4
Buses . . . . .	5645
Auto parts . . . . .	5646, 8, 50, 61
<b>Machinery and equipment</b>	
(a) Electrical apparatus	
Total electrical apparatus and supplies . . . . .	(per <i>Trade of Canada</i> )
Less	
Batteries, fuses, lamp bulbs, electric light fixtures, magnetos, spark plugs, radio and television sets, electric dry-shaving machines	
Plus	
X-ray apparatus, battery jars, silicon steel and part of radio parts	

<i>Item</i>	<i>Trade of Canada Groups or Import Code Numbers</i>
(b) Other machinery and equipment	
Farm machinery . . . . .	5692-5363
Machinery other than agricultural . . . . .	5441-5576
Less	
Household machinery . . . . .	5441-5453
plus	
Lawn mowers	
Scales . . . . .	5707
Valves . . . . .	5713
Bearings . . . . .	5683-5; 5680
Chains . . . . .	5231-6
Nuts, rivets . . . . .	5411-3
Engines and boilers other than auto, truck and aircraft engines	
Scientific and educational equipment	
A list of smaller items such as pulleys, valves, meters, rubber belting, castings for agricul- tural implements	
Less X-ray equipment, cameras	
Materials for structures and miscellaneous investment goods	
Wood unmanufactured (less veneers and pulpwood) . . . . .	4002-4084 less (4075-9 and 4083)
Structural steel . . . . .	5161-9
Sheet and skelp for pipes . . . . .	5148, 9, 50
Tubes, pipes and fittings . . . . .	5181-97
Nails, spikes and tacks . . . . .	5391-5
Plate and sheet glass . . . . .	7090-8100
Paints, pigments and varnishes . . . . .	8171-8216
A long list of such smaller items as wooden mill- work, building materials, hardware, plumbing, fixtures, household heating equipment, lighting fixtures	
Wire products . . . . .	5201-5223
Electrical wire and cable	
Aircraft and engines	
Engines, aircraft and parts . . . . .	5258-61, 5248
Aircraft and parts . . . . .	9171-5
Coal	
Group per <i>Trade of Canada</i> less benzol, coal tar, coal pitch, carbolic or heavy oil, petroleum coke (ground or unground)	

<i>Item</i>	<i>Trade of Canada Groups or Import Code Numbers</i>
Petroleum and products	
Group per <i>Trade of Canada</i> , less asphalt	
Selected basic chemicals	
<i>Trade of Canada</i> Group, chemicals and products,	
Less	
Dyeing and tanning materials . . . . .	8091-8115
Soap . . . . .	8221-4
Perfumes and cosmetics . . . . .	8231-8
Drugs and pharmaceutical products	
Paints, pigments and varnishes . . . . .	8171-8216
Miscellaneous unassigned industrial materials	
Rubber, raw and partly manufactured . . . . .	1680-91
Gums and resins . . . . .	1571-84
Woodpulp . . . . .	4131-35
Miscellaneous paper products . . . . .	5001
Iron ore . . . . .	
Assorted primary iron and steel products . . . . .	
Bauxite . . . . .	6002
Assorted brass products . . . . .	
Platinum . . . . .	6087, 6090
Tin and products . . . . .	6101-3
Ores, n.o.p. . . . .	6208-17
Fire bricks . . . . .	7022-7
Miscellaneous non-ferrous metal products . . . . .	6251
Coal products . . . . .	7007-74
Abrasives . . . . .	7191-7201
Manufactures of iron and steel, n.o.p. . . . .	5714

## *Appendix B*

### **THE RELATIONSHIP OF IMPORTS TO USES IN CANADA**

IN THE Canadian national accounts, the total value of imports of goods and services are deducted from the sum of expenditure by Canadians and by foreigners on goods and services coming available in Canada, no separation being made of imports among the various expenditure classes. For example, the expenditure account for 1953 is:

	(\$ millions)
Personal expenditure on consumer goods and services.....	15,165
Government expenditures on goods and services.....	4,408
Gross domestic investment:	
residential construction.....	1,061
non-residential construction.....	1,726
new machinery and equipment.....	1,922
changes in inventories.....	572
Exports of goods and services.....	5,420
<i>Deduct:</i>	
Imports of goods and services.....	—5,860
Residual error of estimate.....	— 64
	<hr/>
G.N.E. at market prices.....	24,350
	<hr/>

This appendix is concerned with: (a) the desirability of allocating imports to classes of final expenditure, (b) an inventory of the existing work in this connection, and discussion of the problems of such an allocation, and (c) the compromise approach adopted in this study.

#### *Desirability of Allocating Imports among Types of Expenditures*

The basic argument for making such an allocation is the belief that it will be useful for analysis of the changing pattern of imports and for prediction. *A priori*, the growth and variability of imports may differ among final uses

of such imports. For example, the growth of imports associated with consumer expenditure may be quite different than the growth in those associated with investment activity. Thus, even if the division of final domestic expenditure were to remain the same, aggregate imports may change relative to G.N.E. Further, as the import content of the expenditure categories will probably differ widely, even if the import content of each expenditure category remained constant, changes in the distribution of expenditure among final uses would alter the over-all income-import relationship of the Canadian economy. In general, this is an argument that breaking things apart will provide a better understanding of the economic change than can be obtained at the most aggregated levels.

### *Inventory of Work*

Most of the work on the allocation of imports to uses has been carried out on a preliminary and confidential basis at D.B.S. This includes:

- i) a preliminary analysis of the import content of national income for 1948, together with some data for 1938 and 1928;
- ii) an extension of the analysis for 1948 to adjust for import duties and imports of services;
- iii) the work for 1949, arising out of the input-output table for that year.

As these data are preliminary and confidential, discussion here must be confined to a few points regarding concept and method, and one or two conclusions.

The basic problem is one of accurately assigning imports to uses. For many imports, final type of use (consumption-type goods, investment-type goods) is quite clear cut from the trade statistics. For many other imports, particularly intermediate products the assignment is not possible from the trade statistics even among types of goods. This is particularly so for intermediate products which are used by several industries; the most difficult case of this kind is for fuels and lubricants. To make allocations in these cases a very careful study of the flow of materials to industries and from industries to final use must be made.

A second and related problem is the assignment of goods to expenditure categories. For example, after having assigned imports to automobiles, the automobiles in turn must be assigned to exports, consumption, investment and government expenditure in order that the import content of the automobiles be assigned to G.N.E. classes. Similarly, investment-type goods must be assigned among investment expenditure and repairs and maintenance expenditure, as well as among exports and government use. An adjustment for inventory accumulation of goods must be made.

A third problem is that of establishing the appropriate valuations. Imports, in Canada's *Trade Statistics*, are recorded f.o.b. point of origin, and do not include transportation charges, distributive markups, import duties and other taxes as part of this valuation. G.N.E. measures exist only in market prices.

To establish the import content of G.N.E. categories, it will be necessary to place the expenditure categories and the import values on a comparable basis.

Because of the preliminary and confidential nature of the existing work in allocating imports, only a few general conclusions may be stated. With a limited amount of work a rather large proportion of imports can be assigned to final uses. However, to assign all imports is a very large task indeed. There is great variation in the import content of various types of expenditure; the import content is extremely high for investment in machinery and equipment and is well above the Canadian average for consumer durables, and clothing and fuels, and well below the average for personal services, government expenditure and structures, and exports.

Data from the 1949 input-output table are not yet available, but will be shortly. For this one year, the estimates of the import content of G.N.E. will then be available on refined basis, adjusted carefully for each of the problems noted above.

The Research Department of the Bank of Canada has also been working on a reclassification of imports into those flowing into consumption and investment uses. The first results of this work were published in the October, 1956, *Statistical Summary*.<sup>1</sup> The main difference between the Bank's classification and that worked out in this study concerns industrial materials. In our study, those industrial materials which we felt could be assigned with some confidence to end uses were so assigned. The Bank's classification was influenced to a considerable extent by interests in short-run fluctuations whereas ours was concerned primarily with long-run trends. In any case, the Bank's procedure could not be applied directly to our work as it was based on a grouping of the Canadian import statistics by the Standard International Trade Classification, for which data are available only for recent years. We wanted a classification which could be extended back at least until the 1920's.

### ***The Procedure for Allocating Imports to Uses Adopted in this Study***

Despite the attractions, it was decided that making a fully consistent and detailed assignment of imports to the various G.N.E. categories for a number of years between 1925 and the present was beyond the scope of the study of imports as part of the Commission's work. The larger part of a complete input-output study in considerable detail for several years would have to be done, implying a very large commitment of resources.

What has been done in this study is a classification of imports into functional groups, which, in turn, could be related to indexes of various kinds of economic activity within Canada. The classification has been made for selected years since 1928. Some adjustment to place the import groups on a valuation basis similar to that of G.N.E. categories has been made.

<sup>1</sup>Bank of Canada: *Statistical Summary*, October, 1956, pp. 317-318.

The groups into which imports were divided are:

1. Food
2. Beverages and tobacco
3. Clothing and personal furnishings
4. Furniture, appliances and radios
5. Miscellaneous manufactured consumer durables<sup>a</sup>
6. Miscellaneous manufactured consumer perishables<sup>a</sup>
7. Transportation equipment
  - 7.1 Automobiles, trucks and parts
  - 7.2 Aircraft
  - 7.3 Railroad equipment<sup>b</sup>
  - 7.4 Ships and vessels<sup>b</sup>
  - 7.5 Other transportation equipment<sup>b</sup>
8. Machinery and equipment, excluding electrical machinery<sup>b</sup>
9. Electrical machinery<sup>b</sup>
10. Materials for investment in structures<sup>b</sup>
11. Miscellaneous investment goods<sup>b</sup>
12. Coal, petroleum and other fuels
  - 12.1 Coal
  - 12.2 Petroleum
13. Special items
14. Selected basic chemicals
15. Industrial materials, not assigned above.

In general, any final or intermediate good which was clearly used in Classes 1 to 11 was placed in that category. For example, raw cotton was assigned to clothing and personal furnishings. The residual group — 15. Industrial materials, not assigned above — is made up of items which are used in substantial volume in more than one of the Classes 1 to 11, or items on which no information was readily available from which to make the assignment. Throughout the work a number of possible refinements were not made on the ground that their contribution to the general story were not worth the expense. This means that the classification made as part of this study is not the refined job that could be done with more time, or which has been done for 1949 by D.B.S. All that is hoped is that, in a rough approximating way, the main lines of the relationship of imports to uses in the Canadian economy is revealed, and this in a way that will aid the understanding of the economy and the appraisal of the future prospects.

The general content of the various groups was set out in Appendix A.

<sup>ab</sup>In the final analysis, items marked <sup>a</sup> were grouped together, as were items marked <sup>b</sup>.

## *Appendix C*

### **NOTES ON SOURCES OF INFORMATION AND BASIS OF FORECASTS IN CHAPTER 5**

#### ***I. Introduction***

In this appendix, the main sources of information used in Chapter 5 are set out. As well, some details are given on statistical procedures and on the basis for various judgments.

In a speculative activity like forecasting future Canadian imports, the burden is on the author to bare his soul, to make explicit all the evidence and procedures by which conclusions are reached. Neither time nor space permits complete reproduction here, but the notes which follow are an indication of the type of work underlying the forecasts. The sections of this appendix are numbered in the same way as the sections of Chapter 5 to which they pertain.

#### ***II. Foods***

##### ***1. Content of the Group***

The group consists of imports of finished goods and of raw materials and intermediate products which clearly find their outlet in supplying domestic food consumption.

##### ***2. Sources of Information***

(a) *Imports: Trade of Canada*, various issues.

(b) *Prices, tariffs and other elements of commercial policy*: J. H. Young, *Canadian Commercial Policy*, Ottawa, 1957; this study for the Commission contains a quite comprehensive picture of comparative Canadian and world prices of various food products, and the present Canadian commercial policy as it relates to foods.

(c) *The volume of consumption of various foods*: W. M. Drummond and W. Mackenzie, *Progress and Prospects of Canadian Agriculture*, Ottawa, 1957. A study prepared for the Commission.

(d) *Canadian expenditure on food*: D.B.S. *National Accounts, Income and Expenditure*, various issues; data made available by the National Income section of D.B.S.; D.B.S., various surveys of family expenditure. Also see David W. Slater, *Consumption Expenditures in Canada*, Ottawa, 1957.

(e) *Very useful discussions of trends in food consumption* are contained in:—

(i) W. S. and E. S. Woytinsky, *World Population and Production*,

(ii) J. Frederick Dewhurst, *America's Needs and Resources*,

(iii) A Brief of the Canadian Edible Oil Foods Industries to the Commission.

### 3. *Constant Dollar Estimates of Imports of Foods*

The value of food imports in constant (1949) dollars was obtained by deflating the current dollar value figures of a substantial number of types of foods by unit value indices found in D.B.S., *The Review of Foreign Trade*, various years, together with special unit value indices constructed for the purpose from *Trade of Canada*.

### 4. *Projections*

Most of the projections of imports of food were made in the following way:

(a) Under the usual population and income assumptions, a projection of Canadian per capita consumption and imports of each class of food items was made. For example, the evidence from the agricultural study, from family budget data and from comparative Canadian and American experience suggested that per capita consumption of fresh citrus fruits would be approximately 150% of 1953 levels by 1980.

(b) These estimates, together with the expected population estimates prepared for the Commission yielded projected aggregate imports of various food products, as an index, 1953 = 100.

(c) The imports in recent years were examined to find if 1953 was a reasonable base from which to project; it usually was accepted. From the base, projected future values of imports of various kinds of foods were developed.

(d) The individual items were added together to give the over-all estimates.

## III. *Tobacco Products and Alcoholic Beverages*

### (a) *Tobacco Products*

#### 1. *Data sources*

(a) *The basic reference work* on tobacco statistics is D.B.S. Reference Paper No. 9, 1950, setting out data on production, import, export, sales, taxation and consumption of tobacco products.

(b) *Recent data on the value of imported tobacco products* were taken from *Trade of Canada*. These have been converted to constant (1949) dollar series on the basis of special unit value indices built up as a part of this study.

(c) *Another useful source of information on trends in tobacco consumption* are the annual briefs to the Minister of Finance by the Ontario Flue-Cured Tobacco Marketing Association.

(d) *Comparative prices of tobacco products and tariffs on tobacco products:* J. H. Young, *Canadian Commercial Policy*, Ottawa, 1957.

## 2. Assumptions regarding prospective imports

	Indexes, 1955 = 100	
	<i>Prospective consumption in 1980</i>	<i>Prospective imports</i>
Cigars . . . . .	225	225
Raw leaf (mainly for cigars) . . . . .	225	225
Cigarettes . . . . .	225	225
Cut tobacco . . . . .	135	135
Other tobacco . . . . .	135	135
Population . . . . .	170	

For year between 1955 and 1980, the projections assume that the fraction of consumption accounted for by imports for each type of product is the same as the 1955 levels, the consumption projections being based on expected rates of increase in the adult population and the expected consumption of various tobacco products per adult, set out in the study of *Consumption Expenditures in Canada*, a study prepared for the Commission.

## (b) *Alcoholic Beverages*

### 1. *Contents of group*

The group includes all imports of alcoholic beverages which enter the statistics of *Trade of Canada*, valuation being as declared. Separate attention has been given to imports of wines and to spirits; however, in the tables, the data for spirits include imports of small amounts of beer, ale, porter and stout.

### 2. *Sources of data*

(a) *Value and volume of imports: Trade of Canada.*

(b) *Volume of consumption of domestic and imported alcoholic beverages: Canada Yearbook*, various issues.

(c) *Manufacturers' prices and import prices of alcoholic beverages*, together with duties, taxes and markups in 1954: Young, *op. cit.*

(d) *Special unit value indices* were constructed from *Trade of Canada*, to obtain the (1949) constant dollar values of imports of alcoholic beverages for recent years. The import items were deflated in detail.

(e) *Personal expenditure on alcoholic beverages: D.B.S., National Accounts, Income and Expenditure*, various issues, and data made available by the National Section of D.B.S.

### 3. *Observations, assumptions and judgments bearing on the prospects*

Prospective imports of alcoholic beverages depend on the growth in Canadian consumption, the forms of beverage consumed in Canada and the import

share of the Canadian market for various types of beverages. The prospective consumption has been discussed in the study of consumption expenditures prepared for the Commission. By 1980 the Canadian market for alcoholic beverages is expected to be about 250% of present (1955) levels. It seems reasonable to expect Canadian consumption of spirits to increase in about this degree, while, unless good quality imported wines become widely and cheaply available in Canada, the Canadian consumption of wine cannot be expected to increase quite as rapidly. For many years, the import share of the Canadian market for spirits has been falling, partly because such spirits bear higher retail prices than Canadian spirits. (The higher price persists despite the fact that imported spirits of comparable quality are available to provincial liquor commissions at prices lower than the domestically-produced spirits.) In projecting imports of spirits we have assumed that the import share of the Canadian market will continue to decline in the future, from about 34% in 1954 to about 28% in 1980. Regarding wines, Canadian consumption per capita is very small, even compared with that in the United States, and no significant trend of increase has been exhibited during the past 30 years. Because higher incomes and more dining out and foreign travel are expected in the future, it is our judgment that per capita consumption of wine will increase moderately. Further, it seems reasonable to expect some increase in the import share of the Canadian wine market despite the limited selling efforts and high markup which most provincial liquor authorities give to imported wines. In matters of taste, there will always be wide differences of opinion; however, there is a widely held view in Canada at the present time that Canadian wines do not usually compete in quality with the imported products.

#### ***IV. Textiles, Clothing, Leather and Fur Products***

##### ***1. Contents of Group***

The group consists of all textiles and textile products, per *Trade of Canada*, plus imports of feathers, furs, hides and skins, leather (manufactured and unmanufactured), dyeing and tanning materials, a series of miscellaneous clothing items listed in Appendix A, and an estimate of the clothing proportion of the tourist items listed in *Trade of Canada*. In one sense the group is misnamed, in that it includes textile and leather materials which find uses other than in clothing and personal furnishings. However, clothing and personal furnishings account for a very large proportion of the total. Both from the point of view of analysis and projection, the over-all trends are not significantly affected by the limited concern with industrial and other non-clothing uses of textiles.

##### ***2. Data Sources***

(a) *Value of imports: Trade of Canada*, calendar years, various issues.

(b) *Volume of imports, exports and production: yards of fabric: Canadian Textile Journal Publishing Co. Ltd., Manual of the Textile Industry of Canada.*

Montreal, 1954; Brief of the Primary Textiles Institute to the Commission; Briefs of the various Primary Textiles Institutes to the Minister of Finance, 1954 and 1955.

(c) *Volume of imports, exports and production: Pounds of materials: The Canadian Primary Textiles Industry*, a study prepared for the Commission, by the National Industrial Conference Board (Canadian Office), Ottawa, 1957.

(d) *Expenditure on clothing and personal furnishings: D.B.S.: National Accounts, Income and Expenditure*, various issues, and data made available by the National Income Section, D.B.S.

### 3. *Constant (1949) \$ Values of Imports*

For the group as a whole, one method of obtaining the constant (1949) dollar figures was deflation by a (1948) base-weighted index of prices, built up out of components of the published export and import price indices. However, for recent years, a separate deflation was carried out in considerable detail, based mainly on unit value indices built up from *Trade of Canada*. Deflation was carried out separately for raw cotton, cotton yarns and fabrics, and similarly for wool, synthetics, flax, hemp, jute, hides and skins, furs, leather unmanufactured and manufactured, and so on. The United States consumer price index for clothing was used to deflate the estimated value of imports of clothing.

### 4. *Trends and Forecasts*

These matters have been discussed at some length in the text of Chapter 5.

## ***V. Furniture, Household Appliances, and Household Radio and Television Equipment***

### 1. *Content of the Group*

The group includes imports of finished appliances and furniture, parts and components of appliances, and a few materials which clearly find their outlet in the production of furniture and appliances, e.g. such items as veneers. The specific content is listed in Appendix A.

### 2. *Sources of Data*

(a) *Canadian imports and exports: Trade of Canada*, various issues; in addition, selected data on United States exports to Canada have been used.

(b) *Value and volume of production and related data on exports, imports, and apparent Canadian consumption: Clarence L. Barber, The Canadian Electrical Manufacturing Industry*, Ottawa, 1957. A study prepared for the Commission.

(c) *Consumer expenditures on furniture and appliances: D.B.S., National Accounts, Income and Expenditure*, various issues, and data made available by the National Income Section of D.B.S. See also D.B.S., *Survey of City Family Expenditure*, 1953.

(d) *Household facilities and equipment*: D.B.S. surveys by the Special Surveys Division.

(e) *Scale, types of production and costs*: presentation to the Commission by J. H. Goss, President, Canadian General Electric Company Limited, February 1, 1956; Barber, *op. cit.*

(f) *Commercial policy as it affects electrical appliances and prices of electrical appliances in Canada and the United States*: Young, *op. cit.*; Barber, *op. cit.*

(g) *Other references*: See the Briefs to the Commission by the Canadian Electrical Manufacturers' Association, J. M. Thompson of Canadian Westinghouse Co. Ltd., and the Radio-Electronics-Television Manufacturers' Association.

### 3. *Forecasting Assumptions and Judgments*

Abstracting from new products and new techniques, imports of furniture and household appliances into Canada depend on the level of consumer expenditure on such equipment, the kinds of products demanded and the competitive position of Canadian manufacturers in various types of production of intermediate and final products. (The latter depends on the relationships of scale and specialization to costs of production, on effective protection of Canadian production and on various other factors such as Canadian electrical standards.) As Canadian expenditure on household appliances is expected to increase relative to G.N.E. the level of imports will grow more rapidly than either total consumption expenditure or G.N.E. in Canada, unless there was a sharp decline in the import share of the Canadian market for such appliances. (For the consumption projections, see Slater, *op. cit.*) The imports depend also on the type of product demanded. Typically, the import share (either in the form of finished goods or components) is high for large and complex commodities like refrigerators, radio and television equipment, and automatic laundry equipment. The import share is typically much smaller for the smaller and less complex equipment like toasters, floor polishers, conventional-type electric washers and electric ranges. However, for the last item, Canadian standards have acted as a limitation on imports. In general, an increasing proportion of Canadian expenditure on household appliances is expected to go toward the more complex items of equipment, a factor which tends to increase the over-all import share of the Canadian market in household appliances.

Before considering new products and new techniques, let us turn to the question of scale, specialization, and the Canadian competitive position in the manufacture of household equipment. For such larger items of home appliances as electric refrigerators and ranges, Mr. Goss suggested that "an initial mass production facility would produce between 250,000 and 350,000 units per year on a two-shift 80-hour basis. This would represent the smallest mass production facility that could be put in place — a minimum of at least

one of a kind of each equipment or equipment group — near optimum size (is) in excess of 500,000 units”.<sup>1</sup>

As Mr. Barber has pointed out, it is clear that no Canadian facility producing household appliances comes close to approaching the optimal size indicated by Mr. Goss. In 1954 the average volume of output of the four largest producers of refrigerators in Canada was 44.3 thousand units; of conventional washing machines, 25.0 thousand units; automatic washing machines, 6.3 thousand; and electric ranges (over 35 amps), 25.2 thousand units. Because of the large number of small producers of each type of equipment in Canada, the average production per firm is very much smaller than was indicated for the four largest firms.

Mr. Goss's suggested optimal size can be a very misleading indicator of the comparative position of Canadian producers of household equipment at the present time. First, the difference in unit costs between a plant turning out 50,000 units a year and 500,000 units a year are not usually overwhelming. Mr. Barber has shown that comparatively small reductions in unit costs are expected by two firms if they were to produce 200,000 units per year of refrigerators or of ranges rather than 100,000 units per year. Interviews with members of the washing machine trade have suggested that the optimal size of production of (even) automatic washing machines is much smaller than 200,000 and that the unit cost savings of producing 200,000 per year compared with 50,000 units per year are small. Second, so long as Canadian wages are substantially below those in the United States (and they have been for more than a century), the optimal scale of production will be smaller in Canada than it is in the United States. Putting this another way, Canadian producers will be able to offset lower productivity by lower wages, tending to meet United States costs per unit of output at much lower scales of output. Thirdly, while the lack of specialization within Canadian plants which produce household appliances tends to produce higher costs than exist in the United States, given the Canadian context, the production of several products in the same plant provides some of the economies of large-scale operation. Thus, the Canadian scale of operation is not as small relative to the American as is indicated by a comparison of the output of particular types of appliances by comparable firms on each side of the border.

Despite all these qualifications, it seems quite clear that Canadian production of appliances takes place on a smaller scale and in a less specialized way than is consistent with lowest unit costs. Undoubtedly the growth in the Canadian market will make possible considerable economies of larger scale specialized production, and corresponding improvements in the competitive position of Canadian manufacturers. However, if no change takes place in the number of producers in the Canadian market, a four- or fivefold increase in production of household appliances will not produce specialized establishments of the size indicated by Mr. Goss as optimal. If we take Mr. Goss's

<sup>1</sup>J. H. Goss, Canadian General Electric Company, Limited, Presentation to the Commission, February 1, 1956, p. 6.

statement at face value, it would suggest that Canadian production of major or large appliances would still be a long way from optimal size and arrangement two decades from now. For reasons which we have indicated above, it is our belief that a four- or fivefold increase in the production of household appliances in Canada would produce almost all of the economies of larger scale production which are to be had under existing conditions of production. Therefore, aside from the introduction of new products and new technological arrangements, we feel that the import shares of the Canadian market for particular kinds of products might be expected to fall considerably in the future.

Both the introduction of new products and new methods of production will work in the opposite direction. Typically, as new products are introduced in the United States, the import content of Canadian consumption of such goods is extremely high in the early stages of the development of the Canadian market. Such new techniques as printed circuits and electronic control systems in production, appear on balance to increase significantly the economies of large-scale specialized production.

Putting these factors all together, it is our expectation that some small over-all reduction in the import share of the Canadian market in household appliances will take place, the economies of larger scale and specialized production tending to reduce imports by more than the shift of consumption toward more complex appliances and the effects of introduction of new products and new methods of production on the North American continent tend to increase them.

Regarding furniture, the cost comparisons made in the study of Canadian commercial policy prepared for the Commission, indicated that the Canadian price of wooden furniture is now less than that in the United States (both net of commodity taxes). However, Canadian prices are considerably higher than Scandinavian prices for furniture. Canadian prices are higher than American for stuffed furniture and for metal furniture. The import share of the Canadian market has always been small for furniture and this appears to be based on the combination of comparatively cheap Canadian production, import duties and costs of transportation and difficulties of buying from far-away place like Scandinavia. Providing that Canadian furniture manufacturers produce reasonably attractive designs, it is our judgment that imports of furniture will continue to be a small part of the total Canadian consumption.

## ***VI. Miscellaneous Manufactured Consumer Goods***

### ***1. Contents of the Group***

The group includes a wide assortment of perishable and durable consumer goods and materials for the production of such goods, ranging from soap and cosmetics to musical instruments and cameras. The contents are defined in Appendix A to this study. Judged by value, the more important sub-groups

include books and printed matter, drugs and pharmaceutical products, amusements and sporting goods, musical instruments, cutlery, electro-plated ware, clocks and watches, tableware of china, jewellery, assorted tourist purchases excluding clothing, furniture and appliances (which were dealt with in other sections of the study), post-office parcels and settlers' effects.

## 2. *Sources of Data and Information*

(a) *Imports: Trade of Canada*; see Appendix A of this study for classification.

(b) *Constant (1949) dollar value of imports*: the value data for the group were deflated by a special import price index constructed by rearrangement of the components of the published D.B.S. import price index.

(c) *Consumer Expenditure: National Accounts, Income and Expenditure* and data made available by the National Income Section of D.B.S.

(d) *Production, exports, imports and apparent Canadian consumption of some items in the group*; gathered by the author of this study from D.B.S. reports on manufacturing industries, together with data available in *Trade of Canada*. See Chapter 2 of this study, especially Table 14, for data on drugs and pharmaceuticals, books and printed matter, and bicycles.

(e) For data on comparative Canadian and foreign prices, tariffs and selected data on market shares in recent years, see Young, *op. cit.*

## VII. *Autos, Trucks and Parts*

### 1. *Content of the Group*

The group includes those imports of autos, trucks and parts included in the motor vehicle section of Volume III of *Trade of Canada*, plus imports of automobile and truck engines included in the engines and boilers section of Volume III of *Trade of Canada*. The apparent Canadian content of Canadian manufactured vehicles, judged in this way, is less than the over-all Canadian content, because some imported items entering into the manufacture of automobiles appear in other sections of the trade statistics.

### 2. *Sources of Information*

(a) *Canadian foreign trade in autos, trucks and parts*: from *Trade of Canada*.

(b) *Historical data on registration of automobiles, production and sales of automobiles*: D.B.S., *Motor Vehicle Industry*; D.B.S., *Motor Vehicle Parts Industry*: A fairly comprehensive survey of the data is included in the study of the Canadian automotive industry, prepared for the Commission.

(c) *Prices of automobiles and equipment, and Canadian commercial policy*: Young, *op. cit.*

(d) *Analyses and forecasts of the Canadian market for automobiles*: See *The Canadian Automotive Industry* prepared for the Commission by the Sun Life Assurance Company of Canada and Slater, *Consumption Expenditures*. One of the most interesting brief treatments of the Canadian market for

automobiles is found in the *Monthly Review* of the Bank of Nova Scotia, August, 1955. A number of briefs to the Commission also contained comments on the prospective Canadian market for automobiles, including the briefs by The Chrysler Company of Canada, The Ford Motor Company of Canada, General Motors of Canada, The Imperial Oil Company, the British American Oil Company and the Rubber Manufacturers' Association of Canada.

(e) *Comments on prospective imports of autos, trucks and parts* are much scarcer than on the prospective Canadian market. The following extracts are from the automotive industry study prepared for the Commission:

(a) "A factor that could tend to offset the possible loss of export markets is the probability that, as volume grows, some of the more expensive cars now imported from the United States will be made in Canada. Although these now account for only a very small part of the total Canadian market, rising incomes will permit these models to enjoy a larger share of an increasing demand. On the other hand, it is possible that increased sales of small cars, stimulated by the desire for multiple car ownership, may cause imports to rise relatively in early future years, to the detriment of domestic production. To date this has not been a significant factor in the United States market, and it is possible that most Canadians will similarly prefer the combination of a full-sized sedan plus a station wagon or another standard car to the more practical one including the small import. Should demand for these cars increase substantially it is likely that some assembly operations would be established in Canada."

(b) "Given the existing tariff framework, it is inevitable that increased quantities of automotive parts will be manufactured in Canada. This will occur as a direct result of increased vehicle demand and will be occasioned, in the absence of other factors, by the present Canadian content requirements superimposed on larger output. Should the Canadian content of the average car rise to as high as 90%, a possibility in view of the volume increases expected and the greater use of Canadian raw materials, parts production would be stimulated accordingly. . . The present uncertainty surrounding the automatic transmission has been referred to earlier. It seems probable that this item will eventually be made in Canada."

The general tenor of these remarks is an expectation that the import share of the Canadian market for automobiles, trucks and parts, will be much lower in the future than at the present time. Our judgment of the prospects differs in degree from that set out in the automobile study; fairly small decreases in the import share of the Canadian market are our expectation. The following points are relevant to this judgment. First, it is well known that at least one of the automobile manufacturers is pressing fairly hard against the minimum Canadian content which provides cheap entry of imported parts, while the others have reduced their average Canadian content in recent years. Second, the automobile industry is one place where new methods of production appear

likely to increase the size of the minimum efficient scales of production; this would work against increased Canadian content. Third, the automobile industry and the automobile parts industry do not now use all of the protection afforded them by Canadian commercial policy, but they do use a considerable proportion to offset their higher costs of production.

### ***VIII. Machinery and Equipment***

#### ***1. Contents of the Group***

In principle, the objective was to gather into this group import items to correspond as closely as possible with the new investment in machinery and equipment as defined in *Public and Private Investment in Canada*. Due to limitations of time and data, the objective could only be partially reached. Aside from these limitations there are two or three quite important differences between the imports of machinery and equipment as set out in this study and the private and public investment in new machinery and equipment. First, some portion of the imports of trucks, autos and auto and truck parts should be treated as imports of investment goods; in fact this has not been done. All imports of autos, trucks and parts were treated together in the previous section of this chapter. Second, the valuation of the imports of machinery and equipment does not correspond exactly with the valuation of new investment in machinery and equipment in P and PI. The latter is at market prices, while the former is at declared value, per *Trade of Canada*. This tends to understate the import content of the new investment in machinery and equipment in Canada.

The content of the group is described more completely in Appendix A.

#### ***2. Sources of Data***

(a) *General note*: Unfortunately, it is not possible to obtain any precise and comprehensive view of the relationship between the type of industry making investment expenditures, and the kinds of machinery and equipment used by particular industries. Thus, even if one had precise information on the division of the Canadian market for a particular type of machinery between imported and domestic sources of supply, it would not be readily possible to analyze the relationships between the investing industry and sources of capital goods. Further, it is not always possible to analyze, with satisfactory precision, the sources of particular kinds of capital equipment. This is because of differences of definition in the statistics of production and foreign trade for various commodities and because the trade classification often lumps components and final goods into a single item so that a satisfactory analysis of the commodity flow is not possible. There are also differences in the valuation of imports and domestic production and so on. All of this means that our analysis and examination of prospects has to be based on fragmentary data. It is to be hoped that these statistical problems will be more or less solved in the future.

(b) *Main sources of data on investment*

(i) *Public and Private Investment in Canada, 1926-51 and Outlook*, various years. These publications provide estimates of the aggregate investment in machinery and equipment and a classification by the industry carrying out the expenditure.

(ii) Department of Reconstruction, *Public Investment and Capital Formation*, Ottawa, 1945. This study was based on commodity flow methods, and classified the investment by type of equipment, but not by the industry carrying out the expenditure. The published report did not contain the commodity flow buildup for the various groups, but the worksheets underlying this study were made available by the Department of Trade and Commerce. These worksheets permit analysis and the import share of the Canadian market for various types of equipment. By extending the worksheets to recent years, it is possible to obtain a more or less continuous analysis on this basis from 1926 to 1953.

(iii) K. A. H. Buckley, *Capital Formation in Canada, 1896-1930*. This study contains estimates of Canadian investment in machinery and equipment for the period cited, built upon the commodity flow basis. The data can be meshed with the worksheets mentioned in (ii) above.

(iv) More limited information on the imports, exports and production of some types of machinery and equipment is also available. See Urwick, Currie Limited study on *The Canadian Industrial Machinery Industry*, prepared for the Commission; this provides such data for various types of industrial machinery from 1949-54. See also Chapter 2 of this study, particularly Tables 2 and 14. See also the briefs to the Commission by the Machinery and Equipment Manufacturers' Association of Canada, the Canadian Electrical Manufacturers' Association, and the Canadian Machine Tool Builders Association. See also Barber, *op. cit.*; this contains data on imports, exports and production of electrical apparatus.

(v) For analysis of trends in capital investment in the form of machinery and equipment, see Chapter 6 of Wm. C. Hood and Anthony Scott, *Output, Labour and Capital in the Canadian Economy*, Ottawa, 1957.

3. *Sources of Data on Imports of Machinery and Equipment*

The main source of information has been Volume III of *Trade of Canada*. For certain years, rough adjustments had to be made to allow for military equipment.

4. *Prospects — Canadian Market for Machinery and Equipment*

(a) The main source for the prospective aggregate Canadian expenditure on machinery and equipment is Hood and Scott, *op. cit.*, Chap. 6. Except for a few comments, the forecasting in that study does not deal with the prospects for investment expenditure by various industries or on particular types of equipment. The basic method of forecasting there adopted consists

of extrapolation of capital-output ratios together with calculation of the implied rates of investment.

The estimates of prospective expenditure on new machinery and equipment as developed in the study of output, labour and capital are somewhat narrower in coverage than the concept public and private investment in machinery and equipment. Since 1947 new investment in machinery and equipment per public and private investment has been between 4.13% and 5.53% larger than such investment, per the *National Accounts* concepts. As a rough projection of P and PI in machinery in the future we have taken 105.1% of the estimates (per *National Accounts*) as set out in Chapter 6 of the output, labour and capital study, this being the average difference in coverage between 1952 and 1954.

It is not thought that differences in the rate of growth of various industries will make much difference to the aggregate future ratio of machinery and equipment to output. Even if this is correct, it does not follow that the industry mix of future investment is irrelevant to the import prospects. Fragmentary data indicate that there are significant differences in the kinds of capital equipment among industries. It follows that different mixtures of investment in machinery and equipment could alter the imports of machinery and equipment.

(b) Fragmentary data on the mixture of future investment in machinery and equipment are available or can be inferred from some of the other studies prepared for the Commission. The study of Canadian agriculture suggests that the rate of growth of investment in machinery and equipment in agriculture will be much less than the growth in either agricultural output or Gross National Expenditure; thus, the proportion of total investment in machinery and equipment accounted for by agriculture will be much smaller in the future. As imports account for a larger than average share of the Canadian investment in agricultural machinery, this relative decline will tend to decrease the aggregate ratio of imports of machinery and equipment to new investment in machinery and equipment. The growth in other primary resource industries is expected to be somewhat more rapid than the growth in G.N.P. Ordinarily this would tend to reduce the role of imports of machinery and equipment, as imports have been somewhat less important sources of equipment in these industries. However, a substantial part of the expected growth in the output of other primary resource industries and in the investment is expected to be in oil well equipment, an item for which imports supply practically the whole Canadian consumption. Primary manufacturing is expected to account for about the same proportion of new investment in machinery and equipment in the future as at present, thus not affecting the relative role of imports of machinery and equipment. Investment in secondary manufacturing is expected to increase as a fraction of total investment in machinery and equipment; as the import content of such investment is typically well above average for all types of machinery and equipment, this change will tend to increase the role of imported machinery in the total. The utilities have typically used a

larger than average fraction of Canadian equipment in their investment activities; the import share of the Canadian market is much smaller for heavy electrical apparatus, telephone and electronic equipment, and railroad rolling stock than it has been for industrial machinery. As the railroads are likely to be less important outlets for equipment in the future, and as they typically have had a lower than average import content in their machinery and equipment investment than the whole utilities group, and because of the expected increase in the relative importance of steam-generated electricity, it is expected that the average import content of investment in machinery and equipment by the utilities will increase somewhat. However, a growth in the fraction of total investment in machinery and equipment accounted for by the utilities will nevertheless tend to decrease the aggregate importance of imported machinery and equipment in the total Canadian investment bill. As construction activity is expected to account for a smaller fraction of G.N.P. in the future, and imported construction equipment accounts for a very large proportion of the total Canadian use of such equipment, this factor will tend to reduce the aggregate ratio of imported to total machinery and equipment. A relative growth in trade and investment accounted for by trade, will also tend to reduce the aggregate ratio of imported to total machinery and equipment, as a larger than average proportion of such equipment is of Canadian manufacture.

Considering all of these changes together, this writer comes out with the view that the effect of prospective changes in the mixture of investment activity on the over-all ratio of imported to domestically-produced machinery will be relatively small, but it is more likely that the changes in mix will increase than decrease the share of the Canadian machinery and equipment market supplied by imports. This judgment is based on the assumption that the import share of the Canadian market for each type of machinery and equipment was unchanged from the average between 1953 and 1955.

When we consider the prospects for changes in the import shares of the Canadian market for particular types of equipment, we come away with the view that small decreases in such shares are to be expected, mainly because of the prospective growth in the Canadian market.

## ***IX. Materials for Structures, and Miscellaneous Investment Goods***

### ***1. Content of the Group***

The content of this group was described fully in Appendix A. Briefly, the group includes manufactured wood products; structural steel; tubes, pipes and fittings; glass; light fixtures; paints, pigments and varnishes; building stone and lime; plaster and cement; building hardware; and electric wire and cable. There are many imports of industrial materials which find their way into materials for structures in Canada which cannot be specifically included in this group of imports because of inadequate information on which to assign them among end uses in Canada.

## 2. Sources of Information

1. *Imports: Trade of Canada.*
2. *Investment in structures: Public and Private Investment in Canada*, the latter published by the Department of Trade and Commerce.
3. *Production of various materials for structures*: Annual census of manufactures.
4. *Selected products*: Cement: Brief to the Commission by J. M. Breen, The Cement Industry in Canada; Flat glass: Report of an inquiry into an alleged combine in the sale of flat glass in Canada, Combines Investigation Branch of the Department of Justice, Ottawa, 1949; Steel: *The Canadian Primary Iron and Steel Industry*, a study prepared for the Commission by the Bank of Nova Scotia, Ottawa, 1957; Electrical Wire and Cable: *Electrical Wire and Cable Products*, Report of an investigation into an alleged combine in the manufacture, distribution and sale, Combines Investigation Act, Department of Justice, Ottawa, 1953; Wire and Cable, and Lighting Fixtures: Information on apparent Canadian consumption and the import share of the Canadian market: Barber, *op. cit.*, see also the report prepared by F. A. Knox, *et al*, on *The Canadian Electrical Manufacturing Industry: An Economic Analysis*, Toronto, 1955.
5. *Tariffs, Comparative Canadian and Foreign Prices of Building Materials*: see Young, *op. cit.*

### General Points

#### 1. Forecast of Public and Private Investment in Structures

This forecast was built up from three components:

- (a) Investment in structures by industry, the estimates being taken from Hood and Scott, *op. cit.*, Chap. 6.
- (b) Estimates of new investment in residential housing developed in *Housing and Social Capital*, by Yves Dubé, J. E. Howse and D. L. McQueen, Ottawa, 1957.
- (c) Estimates of new investment in non-residential structures, other than those covered in (a). This group consists *mainly* of capital non-defence expenditures by governments, on which a memorandum was prepared for the Commission. The group is also referred to as expenditure on social capital, for which forecasts have been made as part of the study of housing and social capital.<sup>3</sup> The forecasts of investment expenditure on social capital or by governments on capital non-defence purposes do not distinguish between investment in structures and investment in machinery and equipment. It is well known that the predominant element in the over-all investment in this group consists of structures. Therefore, as a rough working estimate of new investment in non-residential struc-

<sup>3</sup>There are minor differences of definition between (i) non-residential investment other than by industry, (ii) government capital non-defence expenditures, and (iii) expenditures on social capital. See Hood and Scott, *op. cit.*, and Dubé *et al*, *op. cit.*, for discussion of these matters.

tures, we have projected the 1955 estimate of non-industry public and private investment in structures on the basis of the expected total government capital non-defence expenditure in the future, obtained from the memorandum mentioned above. The results are quite similar to what would be obtained from using the projected social capital outlays.

## 2. *Imports Versus Canadian Consumption of Materials for Structures and Miscellaneous Investment Goods*

Historical data suggest that some decrease has taken place in the import shares of the Canadian market for items in this group.

### *Import Shares of the Canadian Market for Selected Materials* (percentage)

Item	Basis of computation	1929	1937	1950	1952	1953
Glass . . . . .	Value data	43.4	28.6	28.0	45.3	46.2
Paints, pigments and varnishes . . . . .	“ “	18.9	16.9	16.9	14.2	—
Electrical wire and cables . . . . .	Knox Report	5.4	2.4	2.1	3.0	3.7
Lighting fixtures . . . . .	“ “	44.8	29.4	16.3	19.1	17.9
Wiring devices . . . . .	“ “	11.0	1.1	4.3	9.0	12.1

Fragmentary data indicate that imports now account for a larger share of the Canadian market for cement than they did in the late 1920's.

## X. *Aircraft, Engines and Parts*

### 1. *Content of the Group*

The group includes airplanes and parts, aircraft engines and parts.

### 2. *Sources of Information*

(1) *Canadian stock of aircraft and statistics of civil aviation: Canada Year-book*, various issues.

(2) *New civilian investment in aircraft*: Department of Trade and Commerce, *Public and Private Investment 1926-1951*, and *Outlook*, various issues.

(3) *Trends in United States air transportation*: J. Frederick Dewhurst and Associates, *America's Needs and Resources*, New York: Twentieth Century Fund, 1955.

(4) *Canadian military expenditure on aircraft*: Reports of Department of National Defence and Department of Defence Production.

(5) *Prospective Canadian travel by air*: see briefs to the Commission by Trans-Canada Airlines and by Canadian Pacific Airlines.

### 3. *Prospects*

The limited and arbitrary estimates of prospective imports have been discussed in the text of Chapter 5.

## XI. Coal

### 1. Content of the Group

The group consists of imports of coal as reported in Volume III of *Trade of Canada*.

### 2. Sources of Information

(1) *Imports: Trade of Canada*.

(2) *Trends and prospects in coal consumption, production and imports*: John Davis, *Canadian Energy Prospects*, Ottawa, 1957.

(3) *Tariffs and Prices*: Young, *op. cit.*

### 3. General Notes

The forecast of total imports of coal was taken from the energy study. It was assumed that imports of anthracite coal would fall to about 0.5 million tons by 1965 and thereafter continue at low levels, mainly because anthracite coal will be replaced by petroleum products in space heating. Imports of bituminous coal are expected to decline absolutely during the next decade, thereafter increasing quite rapidly.

The prospective volumes of imports were valued at 1949 prices on the basis of unit values computed from *Trade of Canada*.

## XII. Petroleum Products

### 1. Contents of the Group

The group is defined as the group of that name in *Trade of Canada*, less imports of asphalt.

### 2. Sources of Information

(a) Davis, *op. cit.*

(b) Briefs to the Commission of:

(i) The Imperial Oil Company

(ii) The Shell Oil Company of Canada

(iii) The Canadian Petroleum Association

(iv) The British American Oil Company

(v) The Ford Motor Company of Canada

(c) *The Canadian Automotive Industry*, prepared for the Commission by the Sun Life Assurance Company of Canada.

### Note

The procedures and estimates of the demand for petroleum products in total and in various regions are similar to the Commission's study of Canadian energy prospects and in the brief of the Imperial Oil Company, except that the latter contains smaller estimates than the former. Because of assumptions of lower G.N.P. and because of very conservative assumptions about the

growth of the automobile population in use in Canada, there are good grounds for treating the estimates of the demand for petroleum products found in the Imperial Oil brief as rather conservative forecasts.

### 3. *Valuation of Imports*

The value of the imports are expressed in 1949 prices. Separate unit value indexes were constructed for crude petroleum for refining, aviation gasoline, gasoline under .8236 specific gravity, stove oil, light fuel oil, heavy fuel oils, and diesel fuels. The current dollar value of imports of each of these items was deflated by the appropriate index. The value of imports of other petroleum products was deflated by the implicit price index derived from the items mentioned above.

In projecting the value of imports in 1949 prices, some account had to be taken of the possible changes in the mixture of petroleum products imported. The study of Canadian energy prospects suggests that the import share of the Canadian market for some of the more expensive types of products may fall in the future, items like aviation gasoline. On this account, we have assumed that the value of imported petroleum products will increase by 10% less than the volume of such products between 1955 and 1965, and by 15% less between 1955 and 1980. It should be recalled that the volume measurements are in terms of crude petroleum equivalents.

## XIII. *Selected Chemicals*

### 1. *Content of the Group*

The group dealt with in this section includes the total imports of chemicals and products, as reported in *Trade of Canada*, less a number of sub-groups which have been assigned to specific end uses earlier in this study, items such as drugs and pharmaceuticals, dyeing and tanning materials, paints, pigments and varnishes, perfumes and toilet preparations and soap. Our group corresponds quite closely with the items from the Chemical Products group in the trade statistics assigned to the class basic chemicals in *The Canadian Chemical Industry*, by John Davis, Ottawa, 1957.

### 2. *Sources of Information*

(a) Davis, *ibid*.

(b) A number of briefs on various aspects of the chemical industry were submitted to the Commission; many of these have provided helpful information on imports of chemical products.

### 3. *Index of Prospective Imports*

The projections of imports of the selected group of chemicals were made as follows:

From the judgments found in *The Canadian Chemical Industry* on the prospective growth in the Canadian market for chemicals and the sharing of that market between imports and domestic sources of supply, an index was

formed, (using 1953 as 100) of the prospective total volume of imports of chemical products. 1953 was used rather than 1955, because it was thought that the import share of the Canadian market might be slightly larger than normal in the latter year, due to the unusually high level of capital imports. This index of prospective total imports was used to project the 1953 (current \$) value of the selected group of chemical imports being dealt with in this section. (See Table 47.) After examination of the data in the chemical study, it was our judgment that this would be a satisfactory rough working assumption. The resulting projections of the value of imports of chemicals were then converted to 1949 dollars, using the index of import prices for chemical products, published by D.B.S. in the *Review of Foreign Trade*.

#### ***XIV. Unassigned Industrial Materials other than Basic Chemicals***

##### ***1. Contents of the Group***

The group is defined in Appendix A. It includes those industrial materials, other than basic chemicals, which have not been assigned on the basis of the trade statistics to specific end-uses. The larger sub-groups include basic iron and steel products, iron ore, rubber, and general purpose non-ferrous and non-metallic mineral products, such as brass products.

##### ***2. Sources of Information***

(a) *For Primary Iron and Steel*: see *The Canadian Primary Iron and Steel Industry*, a study prepared for the Commission by the Bank of Nova Scotia. The briefs to the Commission of various firms in the iron and steel industry are also helpful.

(b) *Rubber*: see the brief to the Commission by the Rubber Manufacturers' Association of Canada.

##### ***3. Notes***

The current dollar values of imports were deflated to (1949) constant dollar values using a special index of prices prepared by D.B.S. This index was constructed by regrouping items in the published index of import prices.

## STATISTICAL TABLES

Table 1

## VALUE OF IMPORTS, MAIN COMMODITY GROUPS, SELECTED YEARS

(\$ millions)

Selected agricultural and animal products—mainly food, drink and tobacco

	1926	1929	1937	1947	1949	1950	1953	1954	1955
1. Fruits, nuts and vegetables.....	40.5	50.0	35.7	124.4	115.0	137.9	167.0	186.4	191.6
2. Grains and farinaceous products.....	17.2	26.1	17.9	36.5	25.9	39.4	35.1	47.1	41.4
3. Sugar and its products.....	37.9	27.9	20.7	57.4	71.1	87.0	60.1	62.8	65.5
4. Tea, coffee and chicory.....	18.6	18.0	14.2	35.1	50.3	71.2	80.7	91.5	87.5
5. Alcoholic beverages.....	28.3	46.6	8.1	13.7	22.0	16.9	20.3	19.5	20.1
6. Oils, vegetable.....	11.5	11.9	15.8	23.0	20.6	31.2	23.2	24.1	22.5
7. Other agricultural and animal products, mainly food <sup>a</sup> .....	49.4	64.7	27.2	75.9	73.5	89.1	92.5	108.2	121.0
8. Group total <sup>b</sup> .....	203.4	245.2	139.6	366.0	378.4	472.7	478.9	539.6	549.6

Furs, hides and skins, leather and textile products

9. Furs.....	12.6	14.8	8.2	22.5	19.6	22.0	21.0	18.9	24.8
10. Hides and leather products.....	18.2	20.2	12.4	26.0	24.5	28.0	26.1	21.5	25.9
11. Cotton, raw and unmanufactured.....	23.7	27.6	20.8	60.8	67.3	90.9	57.1	54.0	62.9
12. Cotton, manufactured.....	32.9	33.9	19.8	119.1	73.1	66.5	90.4	76.4	86.3
13. Silk, raw and manufactured.....	29.7	29.4	8.0	7.4	5.6	7.7	6.5	6.4	7.3
14. Wool, raw and unmanufactured.....	10.2	9.7	16.3	30.1	37.4	55.3	42.8	28.5	34.8
15. Wool, manufactured.....	39.2	40.4	19.3	54.4	62.7	52.4	72.8	60.0	59.7
16. Artificial silk and synthetic fibres.....	5.5	12.9	4.1	34.5	30.1	21.3	46.6	40.8	51.5
17. Flax, hemp and jute.....	15.6	15.3	10.5	37.9	20.1	25.6	21.9	20.6	23.0
18. Other textiles.....	27.5	29.8	16.4	46.5	36.7	44.8	49.1	46.7	56.1
19. Group total.....	215.1	234.0	135.8	439.2	377.1	414.5	434.3	373.8	432.3

Table I (cont'd)

	(\$ millions)										
	1926	1929	1937	1947	1949	1950	1953	1954	1955		
Selected capital goods and consumer durables											
20. Farm implements and machinery.....	17.6	31.8	17.2	105.4	177.2	161.6	209.1	143.2	178.2		
21. Machinery, other than agricultural.....	38.7	69.6	46.4	206.0	216.3	226.2	401.9	380.2	445.9		
22. Electrical apparatus and supplies.....	16.7	36.8	15.5	68.8	69.8	82.6	198.3	207.5	226.7		
23. Engines, locomotives and boilers.....	13.9	17.8	11.1	43.9	58.7	54.6	116.7	91.7	109.6		
24. Motor vehicles and parts.....	52.1	84.9	49.4	178.0	167.2	249.9	323.6	262.5	364.5		
25. Airplanes and parts.....	—	2.4	1.4	12.3	13.3	10.9	111.8	100.4	138.1		
26. Refrigeration equipment.....	—	2.0	1.1	12.1	7.3	15.4	55.5	38.9	43.9		
27. Scientific and educational equipment.....	5.7	5.1	4.3	18.4	21.7	23.2	29.7	32.6	36.3		
28. Other iron and steel excluding primary iron and steel....	43.3	65.0	37.8	140.2	155.0	179.9	337.4	332.0	358.6		
29. Group total.....	188.0	315.4	184.2	785.1	886.5	1,004.3	1,784.0	1,589.0	1,901.8		
Mainly industrial materials for manufacture of durables											
30. Wood, unmanufactured.....	12.7	16.5	6.5	16.6	14.9	17.9	30.7	30.5	41.6		
31. Rubber and products.....	30.0	22.7	19.5	28.7	29.0	48.7	50.6	45.7	75.0		
32. Non-ferrous metals, excluding electrical apparatus.....	34.1	53.9	31.5	92.2	104.9	133.0	166.3	149.6	171.4		
33. Glass.....	8.5	10.6	8.5	28.6	25.4	28.2	37.4	34.0	44.1		
34. Other non-metallic minerals, excluding petroleum and coal and clay products.....	16.5	21.7	17.6	38.6	46.3	52.6	69.2	64.9	78.5		
35. Primary iron and steel.....	54.0	73.4	49.1	89.0	117.1	107.9	142.8	112.8	149.2		
36. Group total.....	155.8	198.8	132.7	293.7	337.6	388.3	497.0	437.5	559.8		

Table I (cont'd)

	(\$ millions)										Table I (cont'd)			
	1926	1929	1937	1947	1949	1950	1953	1954	1955					
Chemicals														
37. Drugs and pharmaceutical products.....	3.1	3.7	3.5	11.7	14.8	18.6	22.4	25.0	24.6					
38. Fertilizer.....	3.7	4.7	3.4	6.6	7.8	8.8	12.0	11.9	12.7					
39. Paints, pigments and varnishes.....	4.4	6.2	5.0	13.4	13.9	18.2	21.2	20.1	23.2					
40. Plastics and manufactures.....	2.2	2.8	1.9	5.5	5.7	6.2	1.1	1.2	1.3					
41. Other chemicals.....	18.0	22.8	23.6	76.0	88.6	106.4	165.2	162.2	198.7					
42. Group total.....	31.4	40.2	37.4	113.2	130.7	158.2	221.9	220.4	260.5					
Mainly fuels and lubricants														
43. Coal and products.....	67.3	63.7	42.4	153.7	156.9	190.3	153.3	118.7	123.5					
44. Petroleum and products.....	52.3	77.8	58.8	207.2	273.8	307.0	358.1	345.0	373.6					
45. Group total.....	119.6	141.5	101.2	360.9	430.7	497.3	511.4	463.7	497.1					
Miscellaneous goods — mainly for consumers														
46. Wood, manufactured.....	9.3	13.4	5.0	18.0	15.3	16.6	22.7	23.9	28.2					
47. Paper.....	11.0	14.7	8.0	23.0	20.1	23.4	39.2	43.6	52.7					
48. Books and printed matter.....	13.4	18.1	14.5	31.9	36.1	42.5	68.4	68.1	73.4					
49. Clay products.....	8.2	12.2	9.1	24.1	33.0	33.7	40.6	36.7	44.0					
50. Other miscellaneous commodities.....	53.0	65.7	41.2	119.3	115.8	122.8	284.7	297.0	312.3					
51. Group total.....	94.9	124.1	77.8	216.3	220.3	239.0	455.6	469.3	510.6					
52. Total imports — <i>Trade of Canada</i> .....	1,008.3	1,299.0	808.9	2,573.9	2,761.2	3,174.3	4,382.8	4,093.2	4,711.7					

<sup>a</sup> Group total less lines (1) to (6).<sup>b</sup> Total of agricultural and vegetable products and animal products per *Trade of Canada*, less rubber products, furs, hides and leather products.SOURCE: *Trade of Canada*, calendar year, various issues.

Table II

**VALUE OF IMPORTS, MAIN GROUPS AS PERCENT OF TOTAL VALUE, SELECTED YEARS**  
(*percentage*)

Selected agricultural and animal products — mainly food, drink and tobacco		1926	1929	1937	1947	1949	1950	1953	1954	1955
1.	Fruits, nuts and vegetables.....	4.02	3.85	4.41	4.83	4.16	4.34	3.81	4.55	4.06
2.	Grains and farinaceous products.....	1.71	2.00	2.20	1.42	.94	1.24	.80	1.15	.88
3.	Sugar and its products.....	3.76	2.15	2.55	2.23	2.57	2.74	1.37	1.53	1.39
4.	Tea, coffee and chicory.....	1.85	1.39	1.75	1.36	1.82	2.24	1.84	2.23	1.86
5.	Alcoholic beverages.....	2.81	3.59	.99	.53	.79	.53	.46	.48	.43
6.	Oils, vegetable.....	1.14	.92	.19	.89	.74	.98	.53	.59	.48
7.	Other agricultural and animal products, mainly food <sup>a</sup> .....	4.87	4.98	3.39	2.95	2.69	2.82	2.12	2.64	2.56
8.	Group total <sup>b</sup> .....	20.16	18.88	15.48	14.21	13.71	14.89	10.93	13.17	11.66
Furs, hides and skins, leather and textile products										
9.	Furs.....	1.25	1.14	1.00	.87	.70	.69	.48	.46	.53
10.	Hides and leather products.....	1.80	1.56	1.53	1.01	.89	.88	.59	.53	.55
11.	Cotton, raw and unmanufactured.....	2.35	2.13	2.58	2.36	2.44	2.86	1.30	1.32	1.33
12.	Cotton, manufactured.....	3.26	2.60	2.46	4.63	2.65	2.09	2.06	1.87	1.83
13.	Silk, raw and manufactured.....	2.94	2.26	.99	.29	.20	.24	.15	.16	.15
14.	Wool, raw and unmanufactured.....	1.00	.75	2.02	1.17	1.35	1.74	.98	.70	.74
15.	Wool, manufactured.....	3.89	3.11	2.39	2.11	2.27	1.65	1.66	1.47	1.27
16.	Artificial silk and synthetic fibres.....	.50	.99	.50	1.34	1.09	.67	1.06	1.01	1.09
17.	Flax, hemp and jute.....	1.55	1.18	1.29	1.47	.72	.81	.50	.50	.50
18.	Other textiles.....	2.73	2.29	2.03	1.80	1.34	1.41	1.12	1.14	1.19
19.	Group total.....	21.27	18.01	16.79	17.05	13.65	13.04	9.90	9.16	9.18

Table II (cont'd)

Selected capital goods and consumer durables		1926	1929	1937	1947	1949	1950	1953	1954	1955
20.	Farm implements and machinery . . . . .	1.75	2.45	2.13	4.09	6.42	5.09	4.77	3.50	3.78
21.	Machinery, other than agricultural . . . . .	3.83	5.35	5.74	8.00	7.83	7.12	9.17	9.29	9.46
22.	Electrical apparatus and supplies . . . . .	1.66	2.84	1.92	2.67	2.53	2.60	4.52	5.07	4.81
23.	Engines, locomotives and boilers . . . . .	1.38	1.37	1.37	1.70	2.13	1.72	2.66	2.24	2.32
24.	Motor vehicles and parts . . . . .	5.17	6.54	6.11	6.91	6.06	7.87	7.38	6.41	7.74
25.	Airplanes and parts . . . . .	—	.18	.17	.48	.47	.34	2.55	2.45	2.93
26.	Refrigeration equipment . . . . .	.04	.15	.14	.47	.26	.48	1.27	.95	.93
27.	Scientific and educational equipment . . . . .	.57	.39	.53	.71	.78	.73	.68	.80	.77
28.	Other iron and steel excluding primary iron and steel . . . . .	4.29	5.00	4.67	5.45	5.61	5.67	7.69	8.11	7.61
29.	Group total . . . . .	18.69	24.27	22.78	30.48	32.09	31.62	40.69	38.82	40.35
Mainly industrial materials for manufacture of durables										
30.	Wood, unmanufactured . . . . .	1.26	1.27	.81	.65	.54	.56	.70	.74	.88
31.	Rubber and products . . . . .	2.97	1.75	2.40	1.12	1.05	1.53	1.15	1.12	1.59
32.	Non-ferrous metals, excluding electrical apparatus . . . . .	3.38	4.15	3.89	3.58	3.79	4.19	3.79	3.66	3.64
33.	Glass . . . . .	.84	.81	1.06	1.11	.92	.89	.85	.83	.94
34.	Other non-metallic minerals, excluding petroleum and coal and clay products . . . . .	1.63	1.67	2.18	1.50	1.67	1.66	1.58	1.59	1.67
35.	Primary iron and steel . . . . .	5.35	5.65	6.06	3.46	4.24	3.40	3.26	2.76	3.17
36.	Group total . . . . .	15.43	15.30	16.40	11.42	12.21	12.23	11.33	10.70	11.89

Table II (cont'd)

	1926	1929	1937	1947	1949	1950	1953	1954	1955
Chemicals									
37. Drugs and pharmaceutical products.....	.30	.29	.43	.45	.54	.59	.51	.61	.52
38. Fertilizer.....	.37	.35	.42	.26	.28	.28	.27	.29	.27
39. Paints, pigments and varnishes.....	.43	.48	.62	.52	.50	.57	.48	.49	.49
40. Plastics and manufactures.....	.22	.21	.24	.21	.20	.20	.02	.03	.03
41. Other chemicals.....	1.78	1.75	2.91	2.95	3.20	3.35	3.77	3.96	4.21
42. Group total.....	3.10	3.08	4.62	4.39	4.72	4.99	5.05	5.38	5.52
Mainly fuels and lubricants									
43. Coal and products.....	6.67	4.90	5.24	5.97	5.68	6.00	3.50	2.09	2.62
44. Petroleum and products.....	5.18	5.99	7.27	8.05	9.91	9.67	8.17	8.42	7.93
45. Group total.....	11.85	10.89	12.51	14.02	15.59	15.67	11.67	11.31	10.55
Miscellaneous goods — mainly for consumers									
46. Wood, manufactured.....	.86	1.03	.62	.69	.55	.52	.52	.58	.60
47. Paper.....	1.09	1.13	.99	.89	.73	.74	.89	1.06	1.11
48. Books and printed matter.....	1.33	1.39	1.79	1.24	1.31	1.34	1.56	1.66	1.56
49. Clay products.....	.81	.94	1.13	.93	1.19	1.06	.93	.90	.93
50. Other miscellaneous commodities.....	5.26	5.06	5.09	4.63	4.19	3.87	6.50	7.26	6.63
51. Group total.....	9.35	9.55	9.62	8.38	7.97	7.53	10.40	11.46	10.83
52. Total imports — <i>Trade of Canada</i> .....	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

<sup>a</sup>See footnote <sup>a</sup> to Table I.<sup>b</sup>See footnote <sup>b</sup> to Table I.

NOTE: The items may not add to 100.00 because of rounding.

SOURCE: Computed from value of imports, *Trade of Canada*, calendar years, various issues.

Table III

VALUE OF IMPORTS, MAIN COMMODITY GROUPS, TOTAL AND FROM U.S. AND U.K.,  
SELECTED YEARS

	(\$ millions)											
	1929		1937		1953		1955					
	Total	U.K.	U.S.	Total	U.K.	U.S.	Total	U.S.	Total	U.K.	U.S.	U.S.
Selected agricultural and animal products — mainly food, drink and tobacco	50.0	1.3	38.1	35.7	0.8	21.7	167.0	1.5	102.3	191.6	1.7	125.8
1. Fruits, nuts and vegetables....			18.2	17.9	0.5	4.9	35.1	2.8	31.0	41.4	3.0	30.0
2. Grains and farinaceous products.....	26.1	0.6	1.4	20.7	0.7	0.6	60.1	4.7	3.3	65.5	5.3	3.0
3. Sugar and its products.....	27.9	0.8	0.7	14.2	3.6	0.4	80.7	3.0	4.4	87.5	2.4	6.3
4. Tea, coffee and chicory.....	18.0	5.8	—	8.1	5.9	0.1	20.3	10.3	2.9	20.1	9.9	2.3
5. Alcoholic beverages.....	46.6	38.6	7.6	15.8	5.1	3.4	23.2	0.7	14.3	22.5	1.7	11.3
6. Oils, vegetable.....	11.9	2.3	30.1	27.2	3.7	12.0	92.5	4.4	57.9	121.0	5.6	81.6
7. Other agricultural and animal products, mainly food <sup>a</sup> .....	64.7	4.8	96.1	139.6	20.3	43.1	478.9	27.4	216.1	549.6	29.6	260.3
8. Group total <sup>b</sup> .....	245.2	54.2										
Furs, hides and skins, leather and textile products												
9. Furs.....	14.8	0.8	11.6	8.2	1.7	4.3	21.0	2.3	15.9	24.8	3.3	18.3
10. Hides and leather products....	20.2	2.7	14.2	12.4	3.0	4.0	26.1	8.5	15.6	25.9	7.5	15.7
11. Cotton, raw and unmanufactured.....	27.6	—	27.5	20.8	0.1	20.2	57.1	0.2	46.4	62.9	—	42.4
12. Cotton, manufactured.....	33.9	12.6	17.7	19.8	12.5	4.5	90.4	16.0	64.8	86.3	12.5	59.8
13. Silk, raw and manufactured...	29.4	1.4	11.8	8.0	0.6	5.8	6.5	0.4	3.9	7.3	0.3	4.3
14. Wool, raw and unmanufactured.....	9.7	6.7	1.0	16.3	8.5	—	42.8	20.3	3.5	33.5	16.2	3.5
15. Wool, manufactured.....	40.4	31.1	2.0	19.3	18.0	0.4	72.8	59.2	3.3	60.9	45.6	2.8
16. Artificial silk, and synthetic fibres.....	12.9	5.5	2.9	4.1	2.4	1.0	46.6	4.9	35.7	51.5	5.0	40.9
17. Flax, hemp and jute.....	15.3	6.8	2.2	10.5	4.9	0.7	21.9	5.3	3.9	23.0	5.3	4.1
18. Other textiles.....	29.8	8.2	14.6	16.4	5.8	6.4	49.1	7.1	32.8	56.2	10.5	33.2
19. Group total.....	234.0	75.8	105.5	135.8	57.5	47.3	434.3	124.2	225.8	432.3	106.2	225.0

Table III (cont'd)

Selected capital goods and consumer durables		1929			1937			1953			1955		
		Total	U.K.	U.S.	Total	U.K.	U.S.	Total	U.K.	U.S.	Total	U.K.	U.S.
20.	Farm implements and machinery . . . . .	31.8	0.2	31.3	17.2	0.5	16.3	209.1	5.4	202.8	178.2	3.9	173.1
21.	Machinery, other than agricultural . . . . .	69.6	4.4	63.3	46.4	3.8	41.3	401.9	46.8	339.1	445.9	30.2	397.6
22.	Electrical apparatus and supplies . . . . .	36.8	2.2	33.9	15.5	2.0	12.7	198.3	22.6	172.3	226.7	20.9	198.7
23.	Engines, locomotives and boilers . . . . .	17.8	1.4	16.3	11.1	1.2	9.6	116.7	19.5	96.6	109.6	13.5	95.5
24.	Motor vehicles and parts, . . . .	84.9	0.5	84.3	49.4	1.4	48.1	323.6	35.0	286.4	364.5	19.3	318.0
25.	Airplanes and parts . . . . .	2.4	0.7	1.6	1.4	—	1.0	111.8	7.6	104.0	138.1	13.1	124.6
26.	Refrigeration equipment . . . . .	2.0	—	2.0	1.1	—	—	55.5	0.7	54.7	43.9	0.9	43.0
27.	Scientific and educational equipment . . . . .	5.1	0.3	4.1	4.3	0.6	3.0	29.7	1.8	21.5	36.3	1.6	29.6
28.	Other iron and steel (excluding primary iron and steel) . . . . .	65.0	6.5	54.4	37.8	5.5	28.8	337.4	35.6	286.9	358.6	32.4	323.6
29.	Group total . . . . .	315.4	16.2	291.2	184.2	15.0	160.8	1,784.0	175.0	1,564.3	1,901.8	135.8	1,703.7
Mainly industrial materials for manufacture of durables													
30.	Wood, unmanufactured . . . . .	16.5	—	16.0	6.5	—	6.3	30.7	—	28.1	41.6	—	37.4
31.	Rubber and products . . . . .	22.7	0.6	21.1	19.5	0.5	5.6	50.6	1.9	29.4	75.0	2.2	42.1
32.	Non-ferrous metals (excluding electrical apparatus) . . . . .	53.9	4.9	42.8	31.5	5.3	18.4	166.3	29.4	89.1	171.4	29.9	90.3
33.	Glass . . . . .	10.6	1.3	5.2	8.5	1.7	4.1	37.4	5.2	26.4	44.1	6.7	29.4
34.	Other non-metallic minerals (excluding petroleum and coal and clay products) . . . . .	21.7	2.1	16.0	17.6	1.4	14.2	69.2	4.8	51.8	78.5	5.9	57.7
35.	Primary iron and steel . . . . .	73.4	9.3	59.9	49.1	17.4	29.9	142.8	19.2	112.9	149.2	12.7	124.7
36.	Group total . . . . .	198.8	18.2	161.0	132.7	26.3	78.5	497.0	60.5	337.7	559.8	57.4	381.6

Table III (cont'd)

	1929		1937		1953		1955					
	<i>Total</i>	<i>U.K.</i>	<i>U.S.</i>	<i>Total</i>	<i>U.K.</i>	<i>U.S.</i>	<i>Total</i>	<i>U.K.</i>	<i>U.S.</i>			
Chemicals												
37. Drugs and pharmaceutical products.....	3.7	1.0	2.0	3.5	0.8	2.0	22.4	1.8	19.1	24.6	2.2	20.8
38. Fertilizer.....	4.7	0.1	3.1	3.4	0.6	2.3	12.0	0.1	9.5	12.7	—	10.8
39. Paints, pigments and varnishes	6.2	1.0	4.4	5.0	1.9	2.7	21.2	4.2	16.9	23.2	5.3	17.6
40. Plastics and manufactures.....	2.8	0.1	2.3	1.9	0.1	2.3	1.1	—	1.1	56.8	1.7	54.0
41. Other chemicals.....	22.8	3.4	15.5	23.6	4.4	13.2	165.2	12.5	145.2	143.2	13.4	119.7
42. Group total.....	40.2	5.6	27.3	37.4	7.8	22.5	221.8	18.6	191.8	260.5	22.6	222.6
Mainly fuels and lubricants												
43. Coal and products.....	63.7	5.1	57.7	42.4	6.0	34.6	153.3	6.0	147.1	123.5	4.7	118.6
44. Petroleum and products.....	77.8	0.3	65.1	58.8	0.1	47.6	358.1	0.1	165.8	373.6	0.1	118.3
45. Group total.....	141.5	5.4	122.8	101.2	6.1	82.2	511.4	6.1	312.9	497.1	4.8	236.9
Miscellaneous goods — mainly for consumers												
46. Wood, manufactured.....	13.4	1.0	11.2	5.0	0.3	3.9	22.7	0.8	18.7	28.2	0.8	23.0
47. Paper.....	14.7	1.6	11.6	8.0	1.4	5.6	39.2	1.3	37.0	52.7	1.9	49.7
48. Books and printed matter.....	18.1	2.6	14.8	14.5	2.3	11.6	68.4	2.8	63.1	73.4	3.1	66.9
49. Clay products.....	12.2	4.4	5.6	9.1	4.2	4.2	40.6	14.1	24.6	44.0	14.6	26.5
50. Other miscellaneous commodities.....	65.7	10.6	48.5	41.2	6.2	30.8	284.7	22.8	232.9	312.3	23.7	255.9
51. Group total.....	124.1	20.2	91.7	77.8	14.4	56.1	455.6	41.8	376.3	510.6	44.1	422.0
52. Total imports —												
Trade of Canada .....	1,299.0	195.5	895.6	808.9	147.4	490.5	4,382.8	453.4	3,224.9	4,711.7	400.5	345.21

<sup>a</sup>See footnote <sup>a</sup> to Table I.

<sup>b</sup>See footnote <sup>b</sup> to Table I.

Source: *Trade of Canada*, calendar years, various issues.

Table IV

PERCENTAGE DISTRIBUTION OF IMPORTS, MAIN COMMODITY GROUPS, TOTAL AND FROM U.S. AND U.K.  
SELECTED YEARS<sup>c</sup>

	(\$ millions)						1953			1955		
	1929			1937			Total			Total		
	Total	U.K.	U.S.	Total	U.K.	U.S.	U.S.	U.K.	Total	U.S.	U.K.	U.S.
Selected agricultural and animal products — mainly food, drink and tobacco												
1. Fruits, nuts and vegetables....	3.85	2.60	76.20	4.41	2.24	60.78	61.25	.89	4.06	.88	65.60	
2. Grains and farinaceous products.....	2.00	2.29	69.73	2.20	2.79	27.37	88.31	7.97	0.88	7.24	72.50	
3. Sugar and its products.....	2.15	2.86	5.01	2.55	3.38	2.89	5.49	7.82	1.39	8.09	4.58	
4. Tea, coffee and chicory.....	1.39	32.22	3.88	1.75	25.35	2.81	5.45	3.71	1.86	2.74	7.20	
5. Alcoholic beverages.....	3.59	82.83	—	.99	72.83	1.23	14.28	50.74	.43	49.25	11.44	
6. Oils, vegetable.....	.92	19.32	—	.19	32.27	21.51	61.63	3.01	.53	7.56	50.22	
7. Other agricultural and animal products, mainly food <sup>a</sup> .....	4.98	7.41	46.52	3.39	13.60	44.11	62.59	4.75	2.57	4.66	67.44	
8. Group total <sup>b</sup> .....	18.88	22.10	39.19	15.48	14.54	30.87	45.12	5.72	11.67	5.39	47.36	
Furs, hides and skins, leather and textile products												
9. Furs.....	1.14	5.40	78.37	1.00	20.73	52.43	75.71	10.95	.53	13.30	73.79	
10. Hides and leather products....	1.56	13.36	70.29	1.53	24.19	32.25	59.77	32.56	.55	28.95	60.61	
11. Cotton, raw and unmanufactured.....	2.13	—	99.63	2.58	.48	97.11	81.26	.35	1.33	—	67.40	
12. Cotton, manufactured.....	2.60	37.16	52.21	2.46	63.13	22.72	71.68	17.69	1.83	14.48	69.29	
13. Silk, raw and manufactured...	2.26	4.76	40.13	.99	7.50	72.50	60.00	6.15	.15	4.10	58.90	
14. Wool, raw and unmanufactured.....	.75	69.07	10.30	2.02	52.14	—	8.17	47.42	.74	48.35	10.45	
15. Wool, manufactured.....	3.11	76.98	4.95	2.39	93.26	2.07	4.53	81.31	1.27	74.87	4.60	
16. Artificial silk and synthetic fibres.....	.99	42.63	22.48	.50	58.53	24.39	76.60	10.51	1.09	9.70	79.41	
17. Flax, hemp and jute.....	1.18	44.44	14.37	1.29	46.66	6.66	17.80	24.20	.50	23.04	17.83	
18. Other textiles.....	2.29	27.51	48.99	2.03	35.36	39.02	66.80	14.46	1.19	18.68	59.07	
19. Group total.....	18.01	32.39	45.08	16.79	42.34	34.83	51.99	28.60	9.18	24.56	52.05	

Table IV (cont'd)

	1929			1937			1953			1955		
	Total	U.K.	U.S.	Total	U.K.	U.S.	Total	U.K.	U.S.	Total	U.K.	U.S.
Selected capital goods and consumer durables												
20. Farm implements and machinery . . . . .	2.45	.62	97.48	2.13	2.90	94.76	4.77	2.58	96.98	3.78	2.19	97.13
21. Machinery, other than agricultural . . . . .	5.35	6.32	90.94	5.74	8.18	89.00	9.17	11.64	84.37	9.46	6.77	89.17
22. Electrical apparatus and supplies . . . . .	2.84	5.97	92.11	1.92	12.90	81.93	4.52	11.39	86.88	4.81	9.22	87.65
23. Engines, locomotives and boilers . . . . .	1.37	7.86	91.57	1.37	10.81	86.48	2.66	16.70	82.77	2.32	12.31	87.13
24. Motor vehicles and parts . . . . .	6.54	.58	99.29	6.11	2.83	97.36	7.38	10.81	88.50	7.74	5.29	87.24
25. Airplanes and parts . . . . .	.18	29.16	66.66	.17	—	71.42	2.55	6.79	93.02	2.93	9.49	90.22
26. Refrigeration equipment . . . . .	.15	—	100.00	.14	—	—	1.27	1.26	98.55	.93	2.05	97.95
27. Scientific and educational equipment . . . . .	.39	5.88	80.39	.53	13.95	69.76	.68	6.06	72.39	.77	4.40	81.54
28. Other iron and steel excluding primary iron and steel . . . . .	5.00	10.00	83.69	4.67	14.55	76.19	7.69	10.55	85.03	7.61	9.03	90.23
29. Group total . . . . .	24.27	5.13	92.32	22.78	8.14	87.29	40.67	98.09	87.68	40.35	71.40	89.58
Mainly industrial materials for manufacture of durables												
30. Wood, unmanufactured . . . . .	1.27	—	96.96	.81	—	96.92	.70	—	91.53	.88	—	89.90
31. Rubber and products . . . . .	1.75	2.64	92.95	2.40	2.56	28.71	1.15	3.75	58.10	1.59	2.93	56.13
32. Non-ferrous metals (excl. electrical apparatus) . . . . .	4.15	9.09	79.40	3.89	16.82	58.41	3.79	17.67	53.57	3.64	17.44	52.68
33. Glass . . . . .	.81	—	—	1.06	20.00	48.23	.85	13.90	70.58	.94	15.19	66.66
34. Other non-metallic minerals (excluding petroleum and coal and clay products) . . . . .	1.67	9.67	73.73	2.18	7.95	80.68	1.58	6.93	74.85	1.67	7.51	73.50
35. Primary iron and steel . . . . .	5.65	12.67	81.60	6.06	35.43	60.89	3.26	13.44	79.06	3.17	8.51	83.57
36. Group total . . . . .	15.30	9.15	80.98	16.40	19.81	59.15	11.33	12.17	67.94	11.89	10.25	68.17

Table IV (cont'd)

Chemicals	1929			1937			1953			1955		
	Total	U.K.	U.S.	Total	U.K.	U.S.	Total	U.K.	U.S.	Total	U.K.	U.S.
37. Drugs and pharmaceutical products.....	.29	27.02	54.05	.43	22.85	57.14	.51	8.03	85.26	.52	8.94	83.33
38. Fertilizer.....	.35	2.12	65.95	.42	17.64	67.64	.27	.83	79.16	.27	—	85.03
39. Paints, pigments and varnishes	.48	16.12	70.96	.62	38.00	54.00	.48	19.81	79.71	.49	22.84	75.86
40. Plastics and manufactures.....	.21	3.57	82.14	.24	5.26	89.47	.02	—	100.00	.03	2.99	95.07
41. Other chemicals.....	1.75	14.91	67.98	2.91	41.94	93.22	3.77	7.56	87.89	4.21	9.36	83.59
42. Group total.....	3.08	13.93	67.91	4.62	20.85	60.16	5.06	8.38	86.47	5.52	8.68	85.45
Mainly fuels and lubricants												
43. Coal and products.....	4.90	8.00	90.58	5.24	37.73	81.60	3.50	8.91	95.95	2.62	3.80	96.03
44. Petroleum and products.....	5.99	.38	83.67	7.27	.17	24.71	8.17	.02	46.29	7.93	.03	31.66
45. Group total.....	10.89	3.81	86.78	12.51	6.02	81.22	11.67	1.19	61.18	10.55	1.00	47.66
Miscellaneous goods — mainly for consumers												
46. Wood, manufactured.....	1.03	7.46	83.58	.62	6.00	78.00	.52	3.52	82.37	.88	—	89.90
47. Paper.....	1.13	10.88	78.91	.99	17.50	70.00	.89	3.31	94.38	1.11	3.60	94.30
48. Books and printed matter.....	1.39	14.36	81.76	1.79	15.86	80.00	1.56	4.09	92.25	1.56	4.22	91.14
49. Clay products.....	.94	36.06	45.90	1.13	46.15	46.15	.93	34.72	60.59	.93	33.18	60.22
50. Other miscellaneous commodities.....	5.06	16.13	73.82	5.27	14.55	72.30	6.50	8.00	81.80	6.63	7.59	81.94
51. Group total.....	9.55	16.27	73.89	9.80	18.18	70.83	10.40	9.17	82.59	11.11	8.64	82.65
52. Total imports —												
Trade of Canada.....	100.00	15.05	68.94	100.00	18.22	60.64	100.00	10.34	73.49	100.00	8.50	73.27

<sup>a</sup> See footnote <sup>a</sup> to Table I.<sup>b</sup> See footnote <sup>b</sup> to Table I.<sup>c</sup> The percentages from U.S. and U.K. refer to each item.Source: Computed from value of imports, *Trade of Canada*, calendar years, various issues.

Table V

CANADA: A FUNCTIONAL CLASSIFICATION OF IMPORTS

(millions of current dollars)

	1928	1929	1937	1938	1950	1951	1952	1953	1954	1955
1. Food.....	202.6	208.1	121.9	109.5	436.4	487.4	438.6	434.0	501.6	508.1
2. Beverages and tobacco.....	30.1	26.9	11.5	12.2	21.7	22.7	25.8	26.1	25.0	25.8
3. Clothing and textiles, personal furnishings and materials for such uses.....	244.6	242.1	144.8	113.2	451.5	585.0	456.8	496.5	433.7	498.5
4. Furniture, appliances, radio, TV.....	13.7	20.2	11.8	11.8	61.3	89.5	107.7	157.6	132.9	150.7
5. Misc. consumer durables.....	45.4	48.7	34.4	32.5	121.5	169.8	192.2	206.5	227.5	255.1
6. Misc. consumer perishables.....	27.0	30.2	23.2	23.6	75.4	87.5	92.9	111.4	113.8	121.9
7. Autos, trucks and parts.....	101.2	93.4	54.7	39.9	262.6	287.9	270.4	340.2	276.4	388.8
8. Estimate of imports of autos, trucks and parts allocated to investment and exports of machinery and equipment.....	(33.3)	(32.1)	(20.7)	(15.3)	(105.3)	(132.9)	(137.3)	(146.9)	(118.1)	
9. Machinery and equipment (excluding autos, trucks and parts, aircraft and parts and minor assignable items).....	148.0	167.7	97.6	86.9	570.1	793.0	862.7	975.8	910.7	1,005.7
10. Aircraft and parts.....	2.7	3.3	2.6	4.7	18.8	61.1	162.6	158.1	115.3	171.7
11. Materials for investment in structures.....	58.3	67.4	30.3	22.7	149.7	207.4	206.3	224.6	223.6	264.5
12. Miscellaneous investment goods.....	10.4	15.2	3.1	2.0	9.9	17.2	17.5	23.8	15.0	21.4
13. Coal, petroleum and fuels.....	130.2	140.7	100.1	93.8	491.4	534.3	503.9	503.6	457.8	489.9
14. Coal.....	(67.5)	(65.6)	(40.9)	(38.0)	(182.8)	(179.8)	(160.6)	(144.2)	(110.5)	(113.7)
15. Petroleum.....	(62.6)	(77.8)	(59.0)	(55.6)	(307.9)	(353.9)	(341.9)	(358.0)	(345.0)	(373.6)
16. Special items.....	10.4	11.8	5.7	5.9	12.8	31.0	31.0	43.6	42.2	65.8
17. Basic chemicals.....	21.1	23.8	22.4	22.7	107.5	133.2	137.2	164.8	162.1	197.1
18. Unassigned industrial materials.....	149.8	171.0	144.8	96.1	490.7	531.7	525.4	516.4	455.5	546.4
19. Total imports.....	1,195.5 <sup>a</sup>	1,270.5 <sup>a</sup>	808.9	677.5	3,174.3	4,084.9	4,031.0	4,383.0	4,093.0	4,711.4

<sup>a</sup>The data from *Trade of Canada* were adjusted for overvaluation of imports of alcoholic beverages in these years.

SOURCE: See Appendix B.

## Appendix E

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<sup>1</sup>This is one of a series of three studies on Canadian international economic relations prepared under the direction of S. S. Reisman.



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